

Making your world a quieter place



HEAVY RAIL TRAM HIGH SPEED METRO

TRACK

CDM - Right on track

CDM is a Belgian company that has specialised in noise and vibration for over 60 years. Our rail isolation systems have been developed to protect people all over the world, in their living and working environments, from the stressful effects of noise and vibration generated from rail systems. Light rail, metro, underground, high speed and heavy rail all generate high levels of noise and vibration which can travel through the ground and cause significant noise nuisance in major city infrastructure such as concert halls, theatres, cinemas, studios, hospitals, schools, universities, apartments and commercial buildings.

Over many years CDM has researched and tested, in our own laboratories and other independent facilities, many raw materials and systems and the analysis of this data has allowed us to optimise solutions for each level of track isolation. We have an ongoing commitment to the research and development of track solutions, including participation in several European framework and research programmes and The European Committee for Standardisation. Our involvement in this research and development is one of the driving forces for the expansion and improvement of our range of systems.



CDM – Designing your solutions

CDM's many years experience in the rail market, highly skilled engineering team and sophisticated computer analysis software enables us to offer solutions to accommodate different rail types, axel loads, un-sprung mass, electrical isolation and train speed.

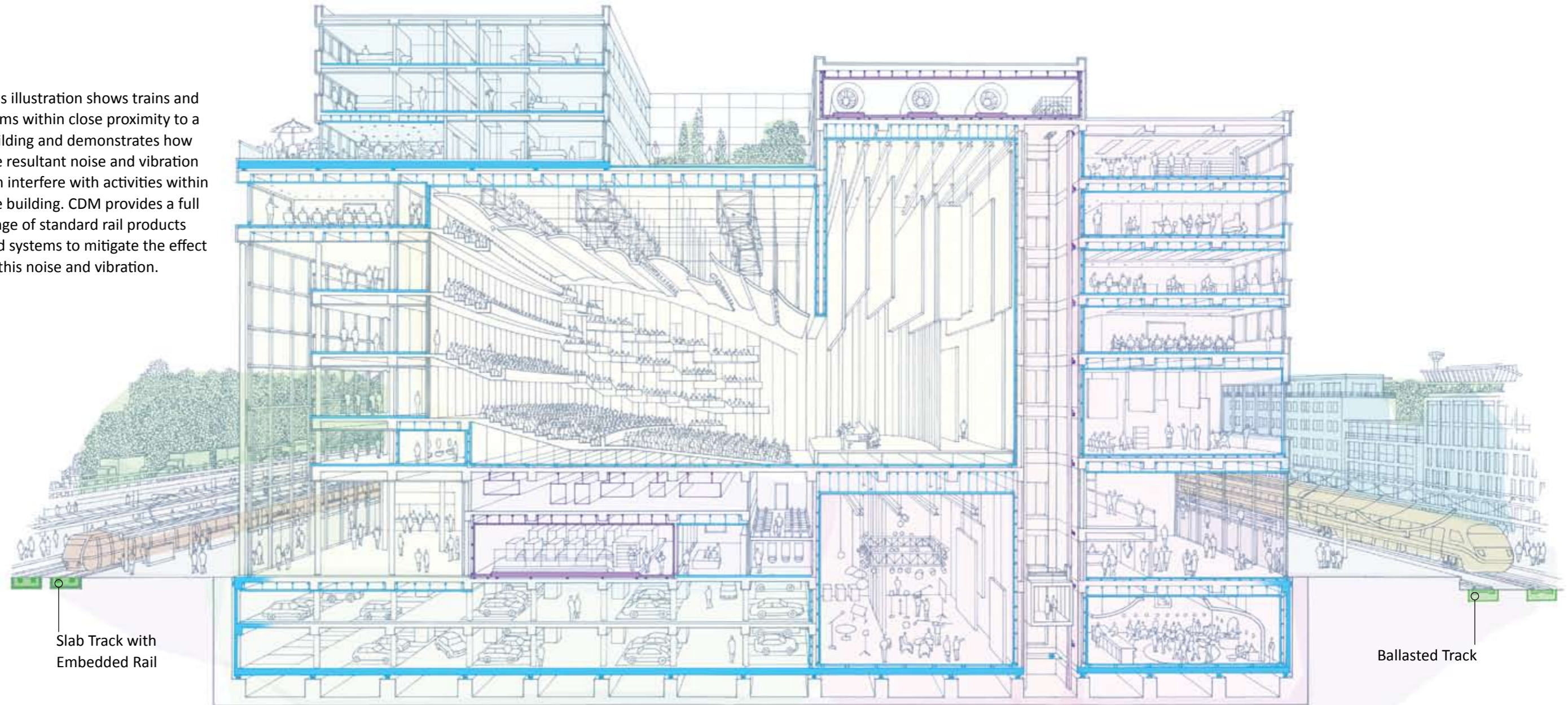
Our vast knowledge of raw materials and supporting test data, collected over many years from our own laboratory and other external facilities, enables us to research and deliver the optimum solution on a project by project basis. You can be absolutely certain that the system we design for you is technically the best available.

Our experienced team of draftsmen will communicate our designs on clear, concise drawings and installation plans to facilitate a quick and efficient site installation.

Heavy Rail
Tram
High Speed Metro
Freight
Light Rail
Subway
Depots



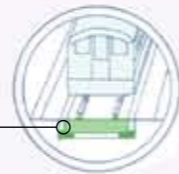
This illustration shows trains and trams within close proximity to a building and demonstrates how the resultant noise and vibration can interfere with activities within the building. CDM provides a full range of standard rail products and systems to mitigate the effect of this noise and vibration.



Slab Track with Embedded Rail

Ballasted Track

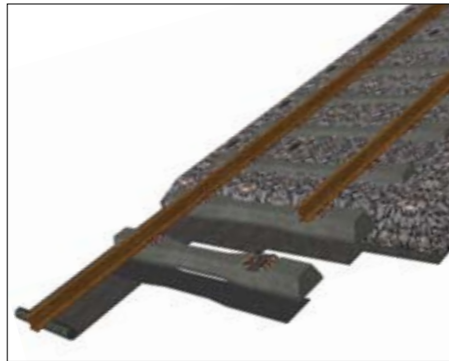
Slab Track



Our standard systems are divided into three categories and following is a brief overview for each of them.

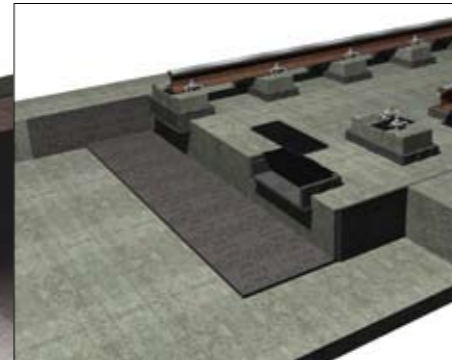
Ballasted Track Systems

- CDM-SRP Standard Rail Pad
- CDM-DRP high resilient DPHI Rail Pad
- CDM-USP Under Sleeper Pads
- CDM-BAM Ballast Mats



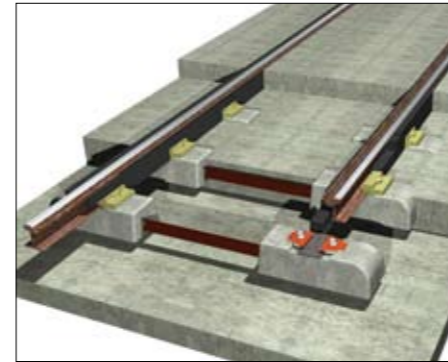
Slab Track Systems

- CDM-SRP Standard Rail Pad
- CDM-DRP high resilient DPHI Rail Pad
- CDM-SRS Standard Rail Strip
- CDM-UBP Under Base-plate Pad
- CDM-DF Direct Fixation
- CDM-BS Booted Sleeper
- CDM-BSP Booted Sleeper Pads
- CDM-FSM Floating Slab Mats
- CDM-FSP Floating Slab Pads



Embedded Rail Systems

CDM-FTrack: F(lexiweb)Track – either discrete or continuously supported track with Flexiweb rubber profiles decoupling the whole rail from its environment



CDM-PTrack: P(oured)Track – fastenerless continuously supported poured elastomer system

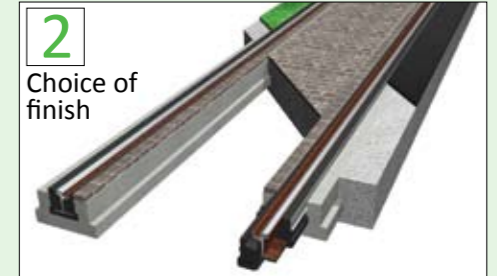
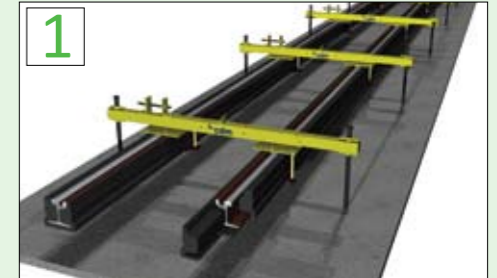


CDM-QTrack

Q(quiet)Track – fastenerless continuously supported track with QT rubber profiles

CDM-QTrack can be installed in three different ways:

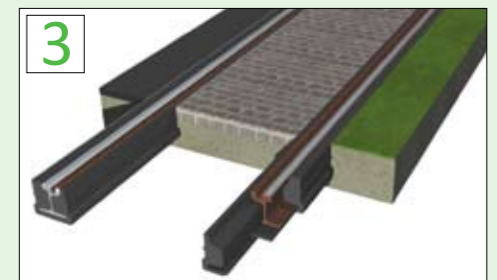
CDM-QTrack-JIG installed on site using specially made installation jigs



CDM-QTrack-BEAM where the rail gets delivered to site in a pre-cast concrete beam reducing installation time



CDM-QTrack-SLAB where the whole track gets delivered in a fully complete reinforced concrete slab with road finish, drainage, switching equipment etc. fully incorporated.



CDM - Excellence Through Innovation

At CDM we combine quality, reliability, technical excellence and cost effectiveness to offer the best range of track isolation solutions available today and here are some of the reasons we think you should be talking to us.

Vibration Isolation - CDM has been at the forefront of vibration isolation techniques in the building and industrial markets for several decades and has acquired a wealth of credible technology which is now being utilised to make significant advances in noise and vibration isolation for the rail market. Our keen understanding of material stiffnesses and performance is being used to individually tune isolation elements to provide the required level of isolation on a project by project basis.

Lateral Stability - Lateral stability of rails is a major safety consideration and although some of our embedded rail systems do not include mechanical fasteners they are carefully designed and extensively tested to ensure they provide better stability than would be achievable with a mechanically fixed rail.



Maintenance and Replacement - The cost of track maintenance and replacement, usually due to rail wear over time, is a major factor when selecting a track system and careful consideration is given when designing our systems to ensure minimum disruption during the replacement programme. CDM-QTrack can easily be removed and replaced during night time shut down periods without disturbing the structure of the road and avoiding expensive traffic delays and re-routing.

Electrical Isolation - Resistivity to stray current leaving the rail and protection of the rail and the surrounding infrastructure from corrosion is a major function of the elastic elements used to support rails. Sometimes additional electrical isolation may be required, such as when rails are used for sending signalling information, and our solutions, which have been closely monitored over decades of successful installations, meet all relevant standards and requirements.

Heavy Rail Tram High Speed Metro Freight Light Rail Subway Depots



Pouring concrete for a CDM-QTrack embedded rail system



Speed of Installation - Many areas of track are located on and across heavily trafficked roads and rail and the speed of installation is one of the most important factors in deciding which system to install. Our systems are carefully designed to provide the most cost effective solution whilst ensuring the minimum amount of installation time and disturbance to other traffic.

Responsibly Managed Materials - The majority of materials used to manufacture our isolation elements are made from recycled rubber tyres. This rubber is carefully graded into different stiffness types and granule size before being resin-bonded to create a range of stiffnesses from which we produce our finished products and systems. When an installation is replaced, after many years operation, the excavated rubber can be collected by us and recycled again to create other rubber products. We believe this sustainable approach provides the most responsibly managed range of isolation materials available on the market today.

Heavy Rail Tram High Speed Metro Freight Light Rail Subway Depots





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