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| **Red Lists:**  **Items that should be eliminated from the project wherever possible.** | |
|  | * Any plant, equipment or supporting infrastructure / service that:   + can only be accessed via the operational railway (i.e. it is not in a depot, yard etc.)   + is in a red zone prohibited working area   + does not allow for the provision of a fenced green zone in the event of it needing attention during operational hours   + is not within a reasonable distance (500m) from an approved access point   + does not have a safe cess or walking route providing access to it   + can only be accessed by crossing an open line   + when worked on, necessitates working at height   + cannot be maintained / repaired without an “outage” due to microwave radiation   + cannot be maintained / repaired without causing an interruption to the rail service   + requires excessive manual handling   + is susceptible to vibration, dust, damp etc.   + is not secure or safe from vandalism, criminal activity and terrorist threat. * Faults are not readily identifiable. * System is reliant on fibre, cable or support from an external service provider. * Equipment cannot be monitored remotely. * Structures that will be lifted into position do not incorporate:   + lifting eyes   + safety nets   + fall arrest / fall restraint arrangements. * Lack of adequate pre-construction information:   + health and safety file   + hazard directory   + asbestos surveys   + geology   + obstructions   + buried services   + ground contamination   + environmental impact assessment   + local instructions / arrangements. * Roof mounted services requiring access for maintenance etc. without provision for safe access (e.g. walkways, barriers). * Entrances, floors, ramps, stairs etc not specifically designed to avoid slips and trips during use and maintenance, including the effects of rain water and spillages. * Environments involving adverse lighting, noise, vibration, temperature, wetness, humidity and draughts or chemical and / or biological conditions during operational use and maintenance operations. * Any construction technique involving excessive noise, vibration etc. such that nuisance may be caused to neighbours. * Processes giving rise to large quantities of dust (dry cutting, blasting etc.). |

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| **Amber Lists:**  **Items to be eliminated or reduced as far as possible and only specified / allowed if really unavoidable.** | |
|  | * Heavy construction components which cannot be handled using mechanical lifting devices (because of access restrictions / floor loadings etc). * Internal manholes / inspection chambers in circulation areas. * External manholes in heavily used vehicle access zones. * The specification of “lip” details (i.e. trip hazards) at the tops of pre-cast concrete staircases and other areas. * The specification of shallow steps (i.e. risers) in external paved areas. * The specification of heavy building blocks and construction materials such as sand, cement etc. (i.e. those weighing > 20kgs). * The chasing out of concrete / brick / blockwork walls or floors for the installation of services. * The specification of solvent-based paints and thinners, or isocyanates, particularly for use in confined areas. * Site traffic routes that do not allow for ‘one way’ systems and / or vehicular traffic being segregated from site personnel. * Site layout that does not allow adequate room for delivery and / or storage of materials. * Need to use large piling rigs and cranes near the operational railway and overhead electric power lines or where proximity to obstructions prevents guarding of rigs. |

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| **Green Lists:**  **Items to be positively encouraged** | |
|  | * Faults are readily identifiable. * Equipment can be remotely monitored * Equipment is reliable and accurate. * Thoughtful location of mechanical / electrical equipment, light fittings, security devices etc. to facilitate ease of access and away from crowded areas. * Thoughtful location of mechanical / electrical equipment, light fittings, security devices etc. to facilitate ease of access during all weathers and during all seasons. * Thoughtful location of mechanical / electrical equipment, light fittings, security devices etc. to facilitate access:   + without going on to the operational railway (i.e. in a depot, yard etc.)   + without climbing   + without requiring personal track safety qualification   + during operational hours and without an “outage” or an interruption to rail services. * There is adequate access for construction and maintenance vehicles to minimise reversing / manoeuvring requirements (i.e. vehicular access in close proximity, one-way systems and turning radii). * There is adequate access and headroom for maintenance in plant rooms, and adequate provision for replacing heavy components. * The specification of pre-cast / finished products with pre-cast fixings to avoid drilling and on-site modification. * The provision of adequate lighting such that the equipment, structure etc. can be worked upon during operational hours of darkness. * Off-site fabrication, assembly and prefabricated elements to minimize on site work and hazards. * Engineering controls are used to minimize the use of Personal Protective Equipment. * Early installation of permanent means of access, and prefabricated staircases with hand rails. * The provision of edge protection at permanent works where there is a foreseeable risk of falls after handover. |