

Raising the Bar documents with design elements

RTB Guidance No	Title	Design Element - Construction	Design Element - Pre-Construction	Potential Level that "design mentioned"	Narrative
B1	Plant and Equipment	Construction Phase Temporary Works	Design Phase - early constructability	minor	Superficial engagement between flow of information from design to construction. Loading on temp works during construction eg for cranes / piling rigs 3D machine Control (3DMC) mandatory for all earthworks stated - infers process of translation between design & 3DMC-compatible output but not explicitly stated
B2	Traffic Management Entry Exit	Construction Phase Temporary Works	None	minor	Mainly about the driving practice - superficial link to design of traffic management layout at entry / exit
B3	Plant Person Interface	Construction Phase Temporary Works	Design Phase - early constructability	Minor	Segregation, pedestrian routes etc
B4	Temporary Safety Barrier	Construction Phase Temporary Works	Design Phase - early constructability	Major	Sophisticated design and risk assessment process
B5	Behavioural Based Safety	None	None		
B6	Caravan Temporary Sleeping Accomodation	Construction Phase Temporary Works	None	minor	Pedestrian routes, access, welfare
B7	Overhead services and structures protection	Construction Phase Temporary Works	None	minor	Identification, sizing of protection, height etc
B8	Manual Handling	Construction Phase Temporary Works	Design Phase - Core Design	major	Potential major with designing for modular construction affecting design solution
B9	Service Avoidance	Construction Phase Temporary Works	Design Phase - Core Design	major	Potential major with designing for service avoidance affecting permanent & temporary works solutions

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B10	Communication of risk	None	None	None	
B11	Influencing driver behaviour	Construction Phase Temporary Works	none	minor	Superficial aspects of supplementary signing in roadworks
B12	Occupational Health	Construction Phase Temporary Works	Design Phase - early constructability	minor	Some planning, selection and specification influences
B13	Excavation protection access and egress	Construction Phase Temporary Works	Design Phase - early constructability	Minor	Actual RtB has superficial inferences to design. In reality, excavation can involve extensive temporary works design
B14	Slip trip and fall	Construction Phase Temporary Works	none	minor	Segregation, pedestrian routes etc
B15	Task Lighting	Construction Phase Temporary Works	none	minor	Some planning selection and specification influences
B16	Working at height	Construction Phase Temporary Works	Design Phase - Core Design	minor	Actual RtB has superficial inferences to design. In reality, work at height can involve extensive temporary works design and influence permanent works design eg edge protection designed to be installed early
B17	Traffic Marshalls	Construction Phase Temporary Works	None	minor	Some planning, selection and specification influences
B18	Dust control	Construction Phase Temporary Works	Design Phase - Core Design	minor	Potential designs to avoid dust creation would be a secondary benefit of designing for modular construction for example. some planning selection and specification influences during construction

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B19	Noise control	Construction Phase Temporary Works	Design Phase - Core Design	minor	Potential designs to avoid noise creation would be a secondary benefit of designing for modular construction for example. some planning selection and specification influences during construction
B20	Transport logistic Management	Construction Phase Temporary Works	Design Phase - early constructability	minor	Overall minor for actual engineering design although planning can be extensive during construction
B21	Lean Health and Safety	Construction Phase Temporary Works	Design Phase - early constructability	minor	Actual RtB has superficial inferences to design. In reality, lean can involve extensive temporary works design and influence permanent works design eg modular or prefabrication
B22	Fatigue	Construction Phase Temporary Works	None	None	Some planning, selection and specification influences
B23	Site Health and Safety Inductions	Construction Phase Temporary Works	None	none	Some planning, selection and specification influences
B24	Hand arm Vibration	Construction Phase Temporary Works	Design Phase - Core Design	minor	Potential designs to avoid HAV creation would be a secondary benefit of designing for modular construction for example. some planning selection and specification influences during construction - ultimate control normally on-site
B25	Loading and Unloading Vehicles	Construction Phase Temporary Works	None	none	Some planning, selection and specification influences

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B26	Design for safety	Construction Phase Temporary Works	Design Phase - Core Design	minor	The whole RtB is about safety in design - the actual engineering design elements referred to are minor but, big themes are presented about the SiD campaign to be adopted to cover the life of the asset. The tables at the end presenting model performance are surprisingly useful
B27	Managing TM incursions	Construction Phase Temporary Works	Design Phase - early constructability	Major	Sophisticated design and risk assessment process then planning and selection. Initially reads superficially then develops the theme of RSA3 as a means of assessing complex layouts and diversions and temporary work design to incorporate remote monitoring, average speed cameras and maintenance - potentially strong link between design-led aspects and TMgt
B29	Supervision	None	None	none	Opportunity missed here - focus is on typical site supervision when design supervision and governance is also critical - see recent HEi244 & issue with wrong bolts on a gantry splice
B31	Safety Helmet Colours	None	None	None	
B33	Occupational Cancers	None	None	None	Talks about RADON which would probably only come out in preconstruction phase GI desk study & Investigation
B34	Mental Well-being	None	None	None	

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B35	Loading and Unloading of mobile Plant	Construction Phase Temporary Works	Design Phase - Core Design	major	Quietly drives the suggestion of design-led approach with a very strong hint at Governance by PD & PC organisations - good balance possible duplicate of RtB 25 Loading and Unloading Vehicles
B36	Lost Loads	None	None	None	