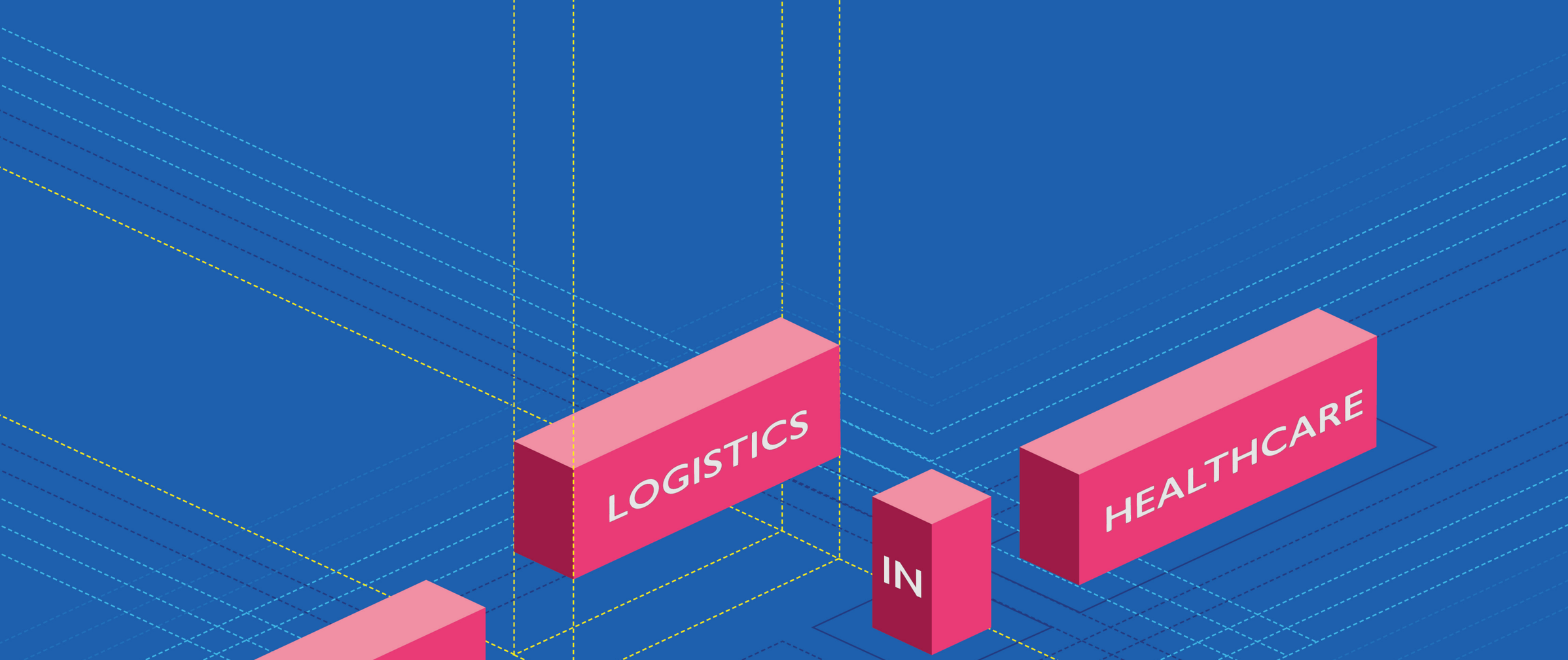

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1.
Construction Logistics Guidance Overview

Hospitals are some of the most complex environments in which to deliver construction projects. Building within a live healthcare estate requires more than technical competence - it demands careful planning and coordination to ensure the safety of patients, staff, and the public, while supporting the efficient and productive delivery of new infrastructure.

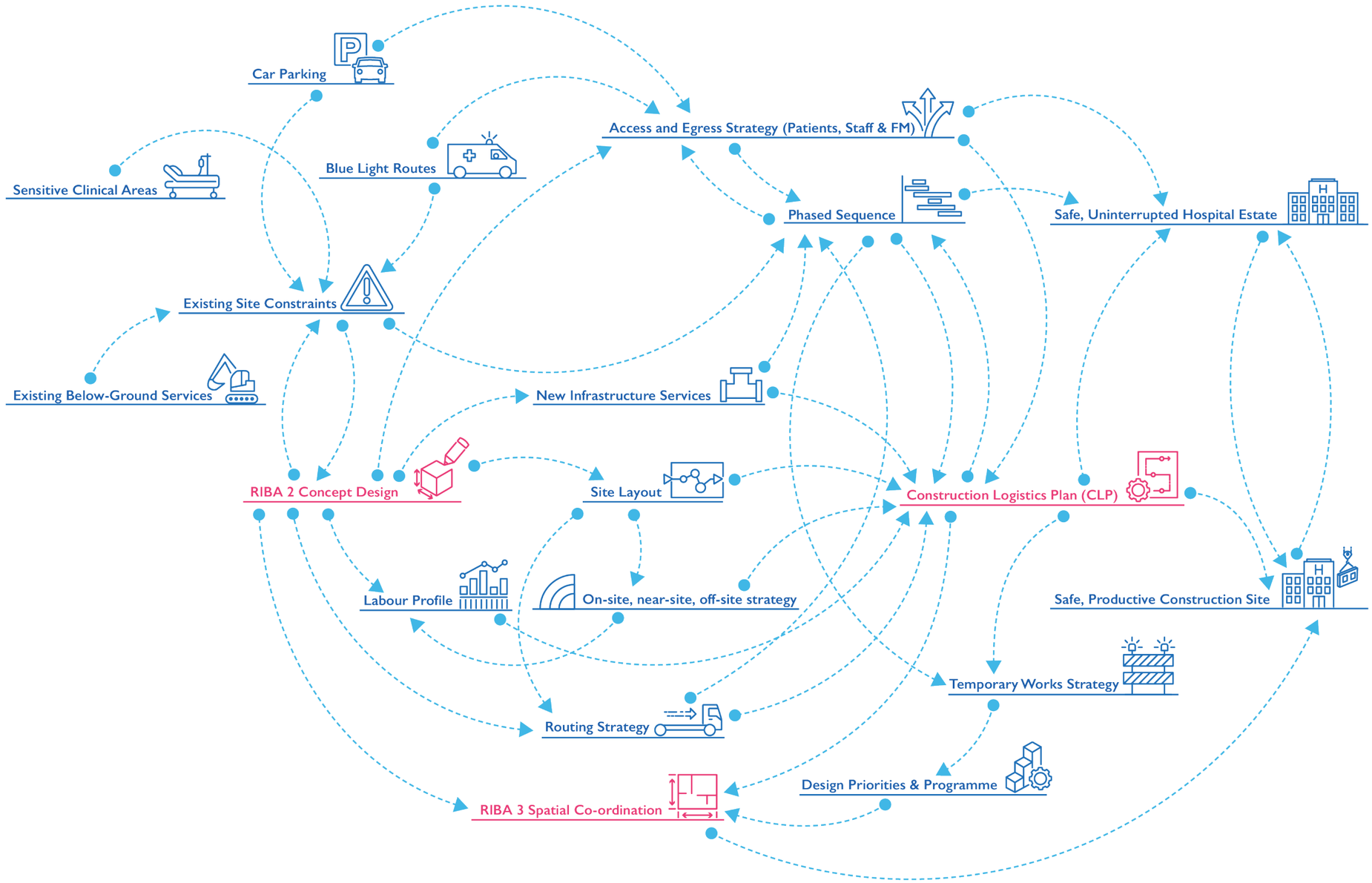
Critical services must remain uninterrupted, space is often severely constrained, and there is a need to coordinate multiple stakeholders with competing priorities. Logistics in this environment must be precise, dynamic, and deeply integrated with both the construction programme and clinical operations.

A well-planned logistics strategy is central to navigating these complexities. More than just a means of moving materials, people and waste, logistics defines the rhythm and flow of the construction process itself. The design of the site - access, egress, delivery zones, internal movement routes, and the sequencing of works - has a direct impact on site productivity and efficiency.

If logistics are not considered early, these constraints can hardwire inefficiencies into the programme, affecting sequencing, resource utilisation and productivity, and ultimately, delivery timelines.

Given the scale and operational sensitivity of hospital projects, optimising productivity through effective logistics is not optional - it's essential. This reinforces the need for logistics planning to be considered early in the project lifecycle, particularly during Strategic Outline Case and early stages of Outline Business Case (e.g. RIBA Stage 2), when concept design and site strategies are first established.

Early planning strengthens the business case by reducing the level of uncertainty in construction delivery - a key driver of optimism bias in both cost and programme. Demonstrating that logistics risks are understood and addressed helps ensure delivery assumptions are realistic and robust. Logistics is not just a technical function: it's a foundation for delivery confidence, programme certainty, and informed decision-making.



Complexity and Interconnectedness of Construction Logistics Planning in early stage design development – and how it can and should inform RIBA Stages 2 and 3

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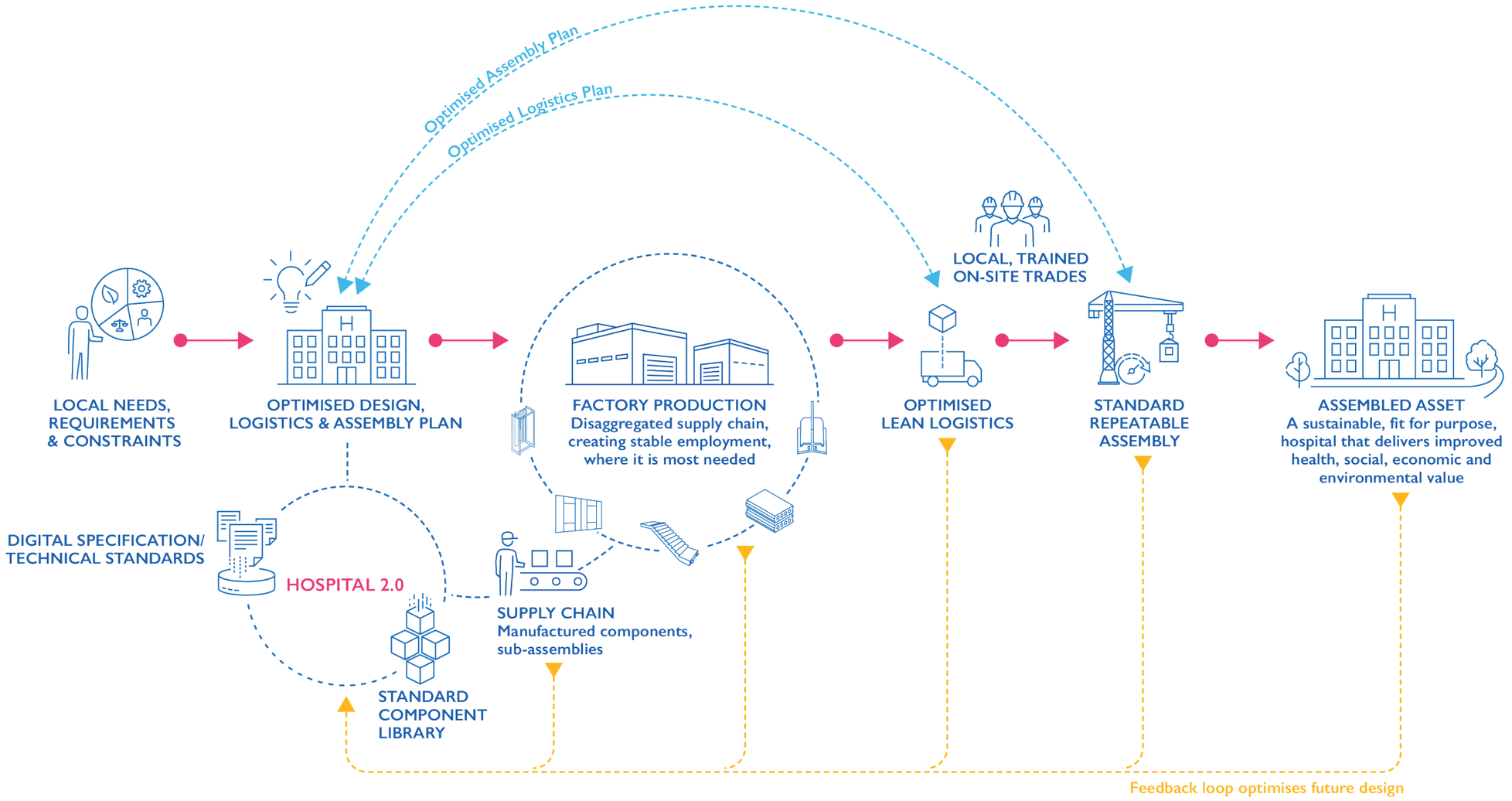
2. Purpose of this guide

This guide sets out how and why Construction Logistics Planning (CLP) should be embedded into hospital developments by Trusts and professional teams during both SOC and OBC, particularly at RIBA Stage 2. At the early stages, design decisions are being shaped, and the opportunity exists to influence key factors that will drive the safe, efficient and productive delivery of the project.

The guide aims to:

- Inform NHS Trusts, professional advisors and design teams of the strategic importance of construction logistics planning at SOC and OBC
- Promote a more consistent approach to assessing logistic considerations within major healthcare schemes
- Outline the role of early logistics planning in supporting operational continuity, site productivity, and programme certainty.

A well-prepared CLP ensures that logistics is not treated as an afterthought but recognised as a core enabler of design, planning and delivery. It aligns construction activity with ongoing clinical operations, creates the right conditions for a safe, industrialised and efficient site from the outset.



Demonstration of how logistics fits into the ecosystem of industrialised healthcare delivery

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3.
What is a CLP?

A CLP is a **strategic tool** used to manage logistics throughout a construction project. It defines how the movement of materials, plant, waste, and personnel will be planned, coordinated, and controlled, both **to and within the site.**

While traditionally used to reduce vehicle movements and their environmental impacts, in healthcare developments, a CLP supports broader objectives:

- **Safety** – Protecting patients, staff, visitors, and the workforce.
- **Operational Continuity** – Maintaining clinical access and service delivery, during decanting, enabling works, main construction and operational handover.
- **Site Productivity** – Enabling industrialised, low-disruption construction methods.

CLPs differ from **Construction Management Plans (CMPs)** and **Construction Environmental Management Plans (CEMPs)**. While CMPs and CEMPs are typically produced later in the design process, a CLP is developed early - ideally at SOC/OBC - during **RIBA Stages 1 and 2**. It identifies and informs critical logistics decisions such as site access and layout, material flow and vehicle routing, construction sequencing and phasing.

Key Logistics Input

Healthcare projects must demonstrate not only improved clinical outcomes and value for money, but also confidence in their deliverability. Construction logistics planning plays a crucial role in achieving this - particularly where development takes place within or alongside a live hospital estate. In such complex environments, logistics becomes a key enabler of both strategic decision-making and operational continuity.

At **SOC** stage, logistics input helps shape early feasibility assessments. Project teams can:

- Evaluate potential sites through the lens of access, phasing, and spatial constraints
- Understand how local infrastructure and estate interfaces might affect construction activity
- De-risk feasibility by identifying key delivery challenges before designs are fixed

By the time a scheme reaches **OBC stage**, logistics thinking should be more detailed and embedded within the proposed delivery strategy. It enables the team to:

- Align construction phasing and enabling works with the need to maintain uninterrupted clinical services
- Define critical logistics parameters such as site access, laydown areas, and the segregation of construction and operational flows

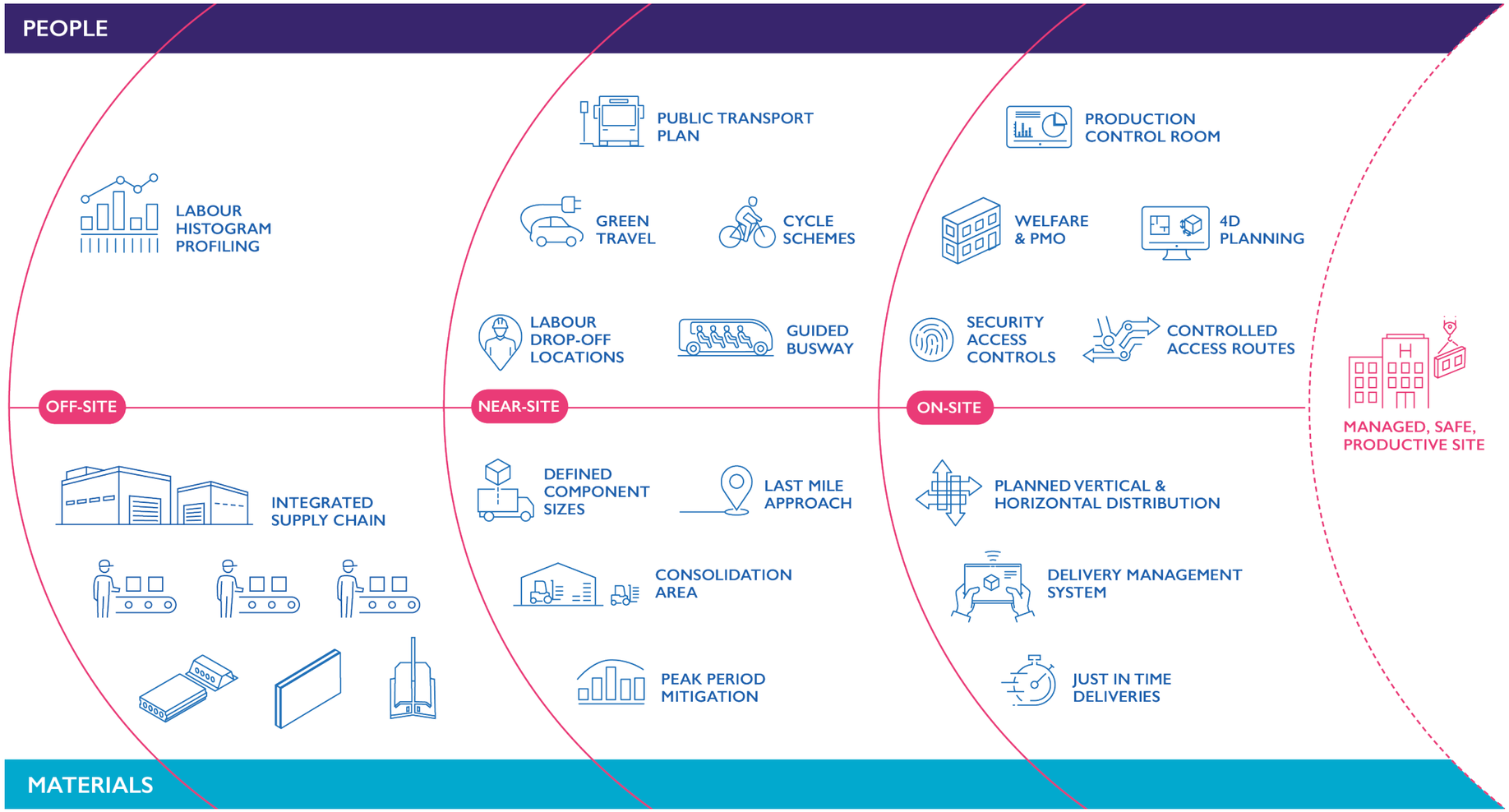
Crucially, logistics planning supports the evaluation of design options in terms of both deliverability and constructability. This includes:

- Assessing how physical site conditions and operational requirements influence the need for enabling works, decanting, and phased delivery
- Identifying logistics-related risks - such as restricted access or limited space - that could impact programme duration or increase cost
- Evaluating how existing infrastructure (e.g. utilities, ground conditions) may constrain construction methods or sequencing

In addition to shaping design and sequencing, logistics planning helps define how the site will operate safely and efficiently during delivery. It provides a clear strategy for:

- Coordinating the movement of materials, people, and vehicles to minimise disruption
- Identifying and mitigating physical, operational, and planning risks
- Aligning with the requirements of the NHS Trust, local authorities, and the planning system

When embedded from the outset, logistics planning gives project teams the clarity and foresight needed to ensure that healthcare schemes are not just clinically and financially robust - but also logistically and operationally deliverable.



A Managed, Safe, Productive Site

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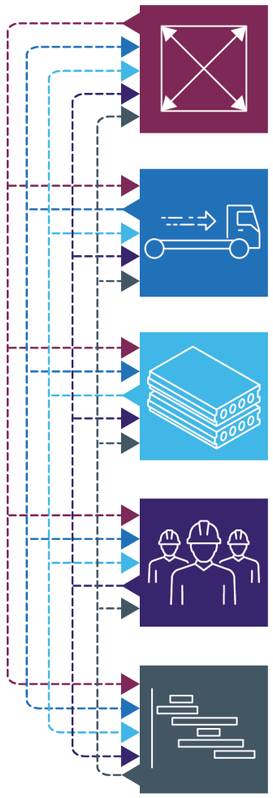
4. Structure of the Guidance

This guide offers a structured framework for implementing CLP in hospital schemes during SOC and OBC stages, offering practical guidance across five interrelated logistics domains:



Constraints
Understanding the physical, operational and planning limitations of the site

Vehicles
Planning movement and management of vehicles to, from and around site

Materials
Managing the flow, storage, distribution and handling of materials and waste

People
Ensuring safe, segregated and efficient workforce movement and welfare provision

Programme
Aligning logistics with construction sequencing, decanting and clinical continuity

Each section is designed to be practical and actionable, providing project teams with pointers towards integrating logistics thinking into early-stage planning and design.

A. Constraint Mapping

Understanding site-specific and operational constraints is the foundation of effective logistics planning. In healthcare projects, constraints are often extensive and often not only physical but also clinical, regulatory and service-driven.

Identifying these early - during the development of the SOC and OBC - is essential to inform access strategies, design feasibility, programme assumptions and phasing.

Checklist

Below we outline considerations that Trusts should consider, in mapping the constraints:

Clinical and Operational Constraints
- Identify 24/7 access requirements for emergency and elective care
- Map Live departments adjacent to or within the development zone (e.g. ICU, theatres, maternity)
- Record Critical service continuity (oxygen supplies, IT servers, imaging equipment)
- Understand FM services and internal logistics (porterage, meal deliveries, waste removal).

Access and Movement Constraints
- Define Blue-light access routes (ambulances, fire access) that must remain unobstructed
- Map Pedestrian flows of patients, visitors and staff
- Assess peak-time pressures – Including shift changes and high-traffic times at drop-off or parking areas
- Identify safeguarded or secure zones – Including safeguarding protocols, maternity units, and controlled entry points
- **Record car parking and transport infrastructure constraints** – Spaces, capacity and proximity to the planned construction zone.

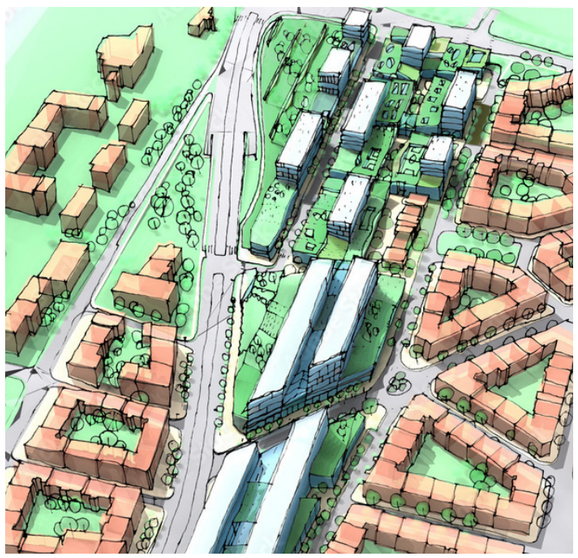
Physical and Infrastructure Constraints
- Define site boundaries and adjacent assets – Including live buildings, shared access, and ownership limits
- Map existing below-ground services – Drainage, high-voltage, fibre, steam or critical MEP infrastructure
- Locate protected infrastructure zones – Including helipads, substations, utility corridors
- Assess structural sensitivities – Proximity to vibration- or movement-sensitive areas (e.g. MRI units).

Environmental and Planning Constraints
- Review relevant planning conditions and designations – Including working hours, delivery routes and environmental limits
- Map sensitive receptors – Schools, care homes, residential properties or clinical recovery zones
- Understand air quality or emissions zones – Low-emission transport expectations or restrictions
- Check heritage, archaeological or ecological restrictions – Including listed assets, retained trees or biodiversity requirements and protected zones.

Programme and Clinical Events
- Identify seasonal pressures – E.g. winter capacity surges, flu season, or high-dependency admissions.
- Map planned operational events – Including decants, refurbishments, or major clinical relocations during the works period.

Why it Matters
- **Design Feasibility**: Constraints directly influence site layout, access points, compound locations and construction sequencing
- **Safety and Continuity**: Failure to identify critical constraints can compromise emergency access, patient care, or hospital operations
- **Cost and Programme Certainty**: Early constraint mapping de-risks delivery assumptions and helps avoid late-stage rework or planning delays
- **Planning Compliance**: Constraints often link to planning conditions, such as Construction Logistics Plans (CLPs), CTMPs or Section 61 agreements.

What Good Looks Like
- **A comprehensive constraints register**, ideally linked to the project risk register, capturing all known and potential constraints (clinical, operational, physical, environmental). Each item should include ownership, risk rating, mitigation actions, and validation from Trust estates and operational teams
- **A spatial constraints overlay** that visually maps relationships between proposed works and critical estate elements. This should include existing and future service routes, pedestrian and vehicle flows, retained structures, biodiversity zones, and other sensitive receptors
- **Clearly defined logistics requirements** derived from constraints—such as protected access routes, restricted delivery windows, phased enabling works, and segregation of construction and hospital operations
- **Active coordination between professional and Trust team** to validate constraints and ensure they're embedded in site layout, phasing, and programme assumptions.



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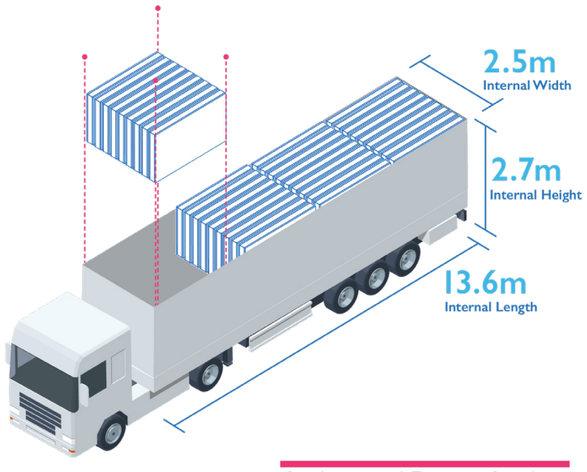
B. Vehicle Movements

In live hospital environments, construction vehicle movements must be tightly planned and managed to ensure safety, preserve access for clinical operations, and avoid unnecessary disruption. Quantifying logistics demand—estimating the volume, type, and timing of vehicle movements over the life of the project is needed to informs space planning, routing, and scheduling requirements.

A well-considered logistics strategy must distinguish between:

- Movements that must be **protected** - such as blue-light, patient, FM and staff vehicle flows
- Movements that must be **managed** - including construction deliveries, plant movement, waste removal and worker drop-off

During SOC and OBC stages, this early quantification—alongside assessment of access points, scheduling constraints, and routing options—helps inform planning submissions (including CLPs and CTMPs), and ensure the operational hospital environment is safeguarded.



Coordination with Transport Consultants

Checklist

The checklist below supports NHS Trusts and project teams in planning construction vehicle movements that maintain clinical safety, operational continuity, and construction productivity.

Hospital Operational Access (To Be Identified and Protected)

- Define emergency and blue-light access requirements – maintaining uninterrupted routes for ambulances and fire services
- Identify patient and visitor access needs – Including drop-off points, public transport arrival zones, and accessible routes
- Assess staff and patient parking numbers – Plan around shift change peaks and car park management
- Map FM vehicle movements – Include back-of-house routes for waste, catering, linen, pharmacy and other logistics services
- Plan pedestrian movement across the estate – Including internal paths, crossing points, and safeguarding zones for vulnerable users

Construction Vehicle Strategy (To Be Planned and Managed)

- Forecast logistics volumes by phase – Quantify daily and weekly vehicle movements, including plant, material and waste; use this to define routing capacity, and stress-test scheduling assumptions
- Identify and define pedestrian movement across the estate for each phase – Including internal paths, crossing points, and safeguarding zones for vulnerable users
- Plan preliminary routing strategy – Identify on- and off-site routes avoiding sensitive hospital and community areas
- Schedule deliveries – Consider the use JIT or timed slots to avoid hospital peak activity and reduce cumulative congestion
- Identify potential holding and marshalling areas – via use of near-site or off-site spaces to prevent early arrivals or congestion
- Plan vehicle movement control: use of traffic marshals, banksmen, signage, and safety zones
- Consider controls that mitigate construction vehicle impacts: e.g. low-emission vehicles, anti-idling policies, and compliance with Section 61 agreements where necessary.
- Plan any associated temporary works – haul roads, traffic diversions or access controls to support safe movement

Many items in this checklist interface with the work of the transport consultant, who is typically responsible for:

- Capacity assessments, traffic modelling and swept path analysis
- Travel Plans, Transport Assessments, and Delivery & Servicing Plans
- External access design, waste and FM vehicle movement planning

However, these scopes often focus on post-completion operation or off-site network impacts. On complex hospital schemes - where construction may span 4–7 years - early-stage coordination is essential to ensure temporary logistics measures are not overlooked.

Trusts should ensure that:

- The CLP author and transport consultant collaborate from the outset
- Construction-phase routing and access is reflected in planning documentation
- Temporary works and enabling infrastructure are assessed for feasibility and impact

This coordination helps avoid late-stage redesign, de-risks programme assumptions, and ensures patient and emergency access is maintained throughout.

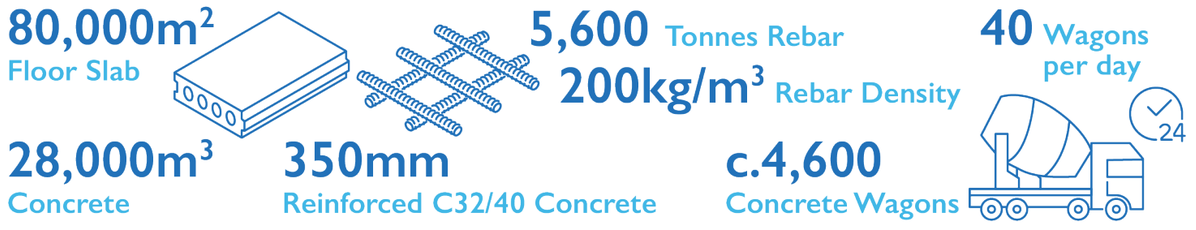
Why It Matters

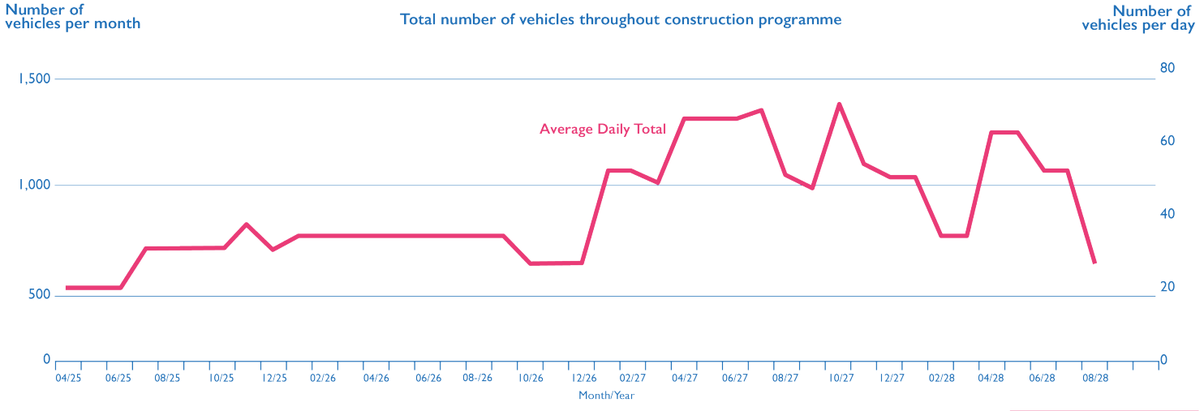
- **Protecting Safety and Clinical Continuity** Uncontrolled construction traffic can block emergency routes, delay patients, and compromise safe hospital access.
- **Planning Compliance and Programme Certainty** Local authority approvals (CLP, CTMP, Section 278, TROs) depend on well-evidenced traffic strategies.
- **Efficient Construction and Delivery** Defined routing, delivery management and marshalling supports lean logistics and minimises costly delays or disruption.

"An efficient workface relies on efficient access for materials, plant and people."

What Good Looks Like

- Clear demonstration of how hospital access will be maintained – Backed by stakeholder engagement and Trust ensuring defined emergency, clinical and staff routes.
- A quantified logistics demand model – Forecasting the number, type, and frequency of construction vehicles by phase, validated against cost plan quantities, and workforce histograms, to inform access and routing design and need for near and off-site consolidation centres.
- A defined construction vehicle routing and delivery management strategy – Demonstrated by swept path analysis, avoiding conflicts with hospital operations and minimising risk of congestion or unsafe interfaces
- Identification of enabling works or temporary infrastructure – Including haul roads, gates, crossings, marshalling or holding areas needed to support the vehicle strategy.
- Ongoing collaboration between transport consultants and logistics leads – Ensuring that planning submissions align with real-world delivery needs and enable a safe, deliverable scheme.





Indicative vehicle statistics

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C. Materials Distribution

The efficient and safe movement of materials is fundamental to the success of the build sequence and the ability to maintain a productive site. Poorly planned material flows lead to congestion, inefficiency, and delays - particularly on constrained hospital sites where access and space are limited.

On a live hospital estate, material logistics must support high volumes of deliveries, while accounting for segregation, infection control, and restricted storage zones. This requires close alignment with the vehicle routing and scheduling strategy set out in Section 2.

At SOC and OBC stages, early planning around horizontal and vertical movement, storage, loading strategy, and access points helps shape site layout, validate programme assumptions, and ensure that the permanent design supports - rather than inhibits - a modern, industrialised approach to construction. It also promotes consideration of temporary works needs, helping to reduce redesign risk and interface clashes later.

Checklist of Considerations

Many of the logistics details relating to material movement will ultimately be defined by the contractor. However, there are key early-stage decisions and interfaces that Trusts and project teams should consider to:

a) Ensure an industrialised approach to construction is not compromised by site or design constraints
b) Recognise and plan for temporary works and enabling requirements

Material Quantification

- Estimate high level quantities and weights: estimate the number of key components, including early Trust equipment and major M&E plant
- Consider early deliveries: Assess potential for early loading out (particularly around Trust equipment and large M&E plant) and any implications upon design (e.g. floor loadings) and procurement

Material Delivery and Access

- Identify delivery constraints – Assess site access restrictions, timing limitations, and proximity to clinical areas
- Develop on-site, near site and off-site strategies – Use phased scheduling and near-site and offsite consolidation centres to reduce on-site vehicle movements and storage demand
- Define laydown and drop zones – Allocate controlled unloading areas, clearly separated from hospital user flows
- Plan for screening and secure handling – Particularly where deliveries are made near sensitive hospital departments

Storage and Handling

- Define on-site storage areas – Allocate space by phase or trade, considering fire risk, access, and congestion
- Develop a vertical and horizontal movement strategy – Identify use of hoists, cranes and lifts to support loading and distribution
- Coordinate temporary vs permanent interface – Coordinating between logistics needs and permanent design features (e.g. hoist slots, floor loadings, slab penetrations)

Waste Management and Returns

- Establish a waste strategy – Plan for segregation, temporary holding, and scheduled removal aligned with site logistics
- Plan for reverse logistics – Enable return, reuse, or recovery of packaging and surplus materials to reduce waste and improve flow

DfMA and Off-site Manufacture

- Assess component size, weight and delivery requirements – particularly for pre-assembled components
- Undertake Hook time analysis – Forecasting of lifting usage based on component quantity, weight and location
- Define tie-in and removal strategies Consider crane and hoist removal, reinstatement of slab openings and coordination with external works & service installation.

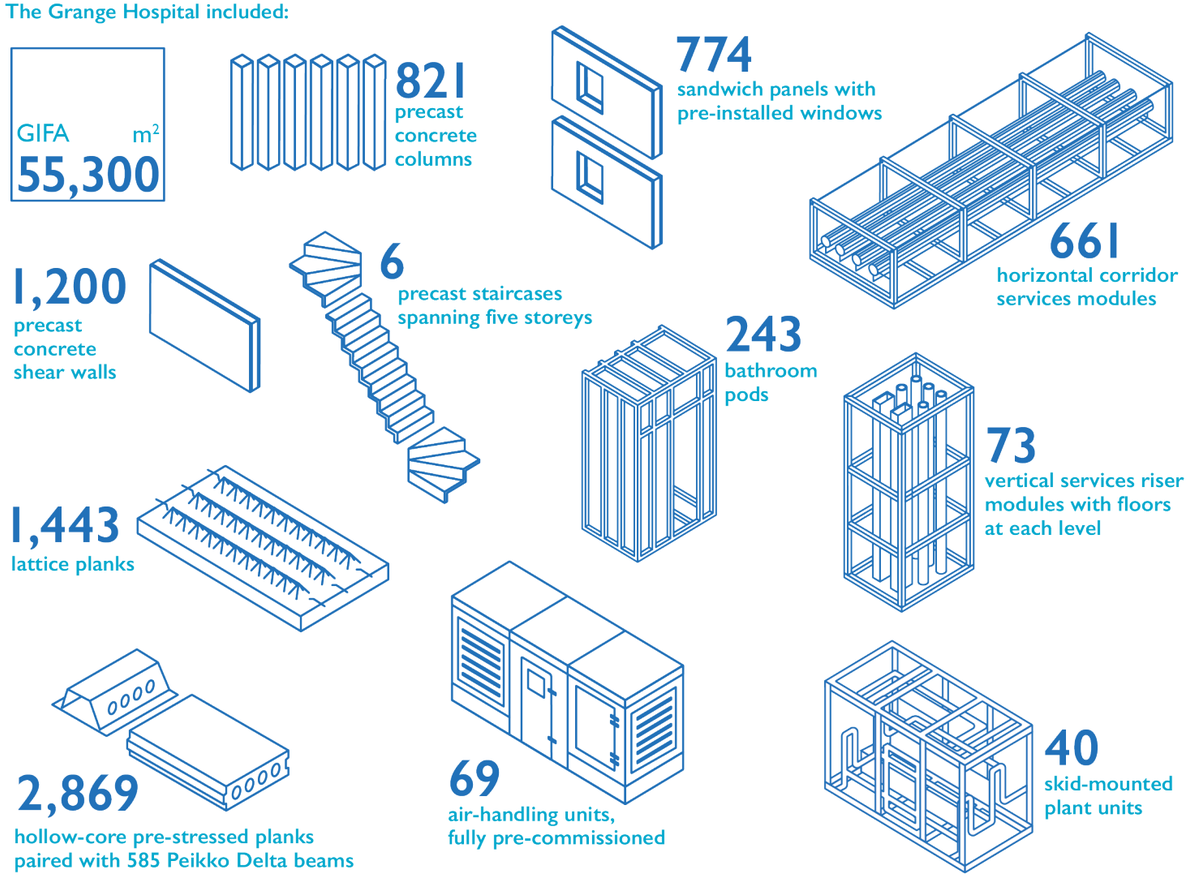
Why it Matters

- **Construction Productivity**: Without efficient movement and flow of materials, site productivity slows, congestion increases, and delays compound across trades.
- **Design Coordination**: Material logistics must inform and be informed by the permanent design - particularly in relation to structural loading, access zones, and services integration.
- **Planning and Programme Confidence**: Material delivery, movement and waste removal influence construction sequencing and temporary works - both of which affect programme certainty.. If not planned early, critical constraints may emerge late.

What Good Looks Like

- An on-site, near-site, off site strategy – that considers the use of consolidation centres
- A coordinated materials movement strategy – Defining horizontal and vertical flows, crane and hoist positions, and space for laydown zones
- Awareness of Component Sizing – With early identification of large components (DfMA and MEP Plant) and associated weights and sizes
- Indicative material flow plans linked to construction sequencing – Enabling safe (1-way) phase-based distribution with minimal rehandling or congestion
- Crane and hoist plan embedded in early design assumptions – Including allowances for slab openings, tie-in points and integration with external works
- Reverse logistics and waste management strategy in place – Supporting clean site operations, fire safety, and compatibility with Trust FM services

The Grange Hospital included:



Grange Hospital Materials Statistics

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D. Workforce Movement and Welfare

The movement and management of people - including site operatives, management teams, and visitors - must be carefully planned on hospital projects to ensure safety, productivity, and minimal disruption to patients, staff and clinical operations.

Hospital estates are high-footfall, high-sensitivity environments. The introduction of large numbers of construction workers creates new risks, particularly where access routes, welfare facilities or laydown areas are near live departments or public spaces.

As established in Section 2: Vehicle Movements and Section 3: Materials Distribution, adaptions to existing hospital user flows and the design of construction flows must considered early.

At SOC and OBC stages, early planning around labour quantification, access points, welfare strategy, and circulation routes is essential to shape the site layout, temporary works and programme phasing. To support an industrialised approach, access for workers should be safe, direct and predictable - enabling repeatable movement, minimising delays, and ensuring a consistent, productive daily site rhythm.

Checklist of Considerations

The following checklist outlines key people-focused logistics issues that Trusts and project teams should begin to consider at SOC and OBC stages.

Workforce Quantification and Forecasting

- Labour histograms linked to programme – Forecast workforce by phase and trade to estimate daily headcounts
- Access predictability – Plan entry routes and flow patterns to support consistent, repeatable movement
- Travel modes and local infrastructure impact – Consider green travel options (walking, cycling, public transport) and effects on parking or drop-offs

Access and Entry Management

- **Construction access points** – Define workforce entry locations, ideally separate from hospital and clinical entrances
- **Pedestrian routes** – Identify safe, direct and segregated walkways to compounds, welfare and work zones
- **Security and site control** – Consider access control layout and capacity, aligned to workforce peaks
- **Boundary control** – Define red line boundaries and manage flows to avoid interaction with vulnerable hospital users

Welfare and Facilities

- **Welfare strategy** – Define red line boundaries and manage flows to avoid interaction with vulnerable hospital users
- **Location of welfare compounds** – Position close to work areas to minimise non-productive movements
- **Temporary services** – Power, drainage and water for welfare units

Site Population and Scaling

- Local infrastructure interface – Assess cumulative impacts on local transport, walking and public realm

Movement Coordination and Site Safety

- **Interface with vehicle routes** – Plan for segregation between pedestrian routes and plant/FM traffic
- **Emergency egress** – Identify safe escape routes for workers, separate from hospital circulation
- **Shared or constrained access points** – Identify potential crossovers and define controls
- **Shift or night working requirements** – Consider impacts of out-of-hours access on hospital and neighbourhood

Why It Matters

Safety and Safeguarding

Hospitals accommodate vulnerable users, including children and elderly patients. Poorly controlled pedestrian movement presents safeguarding and security risks.

Operational Continuity

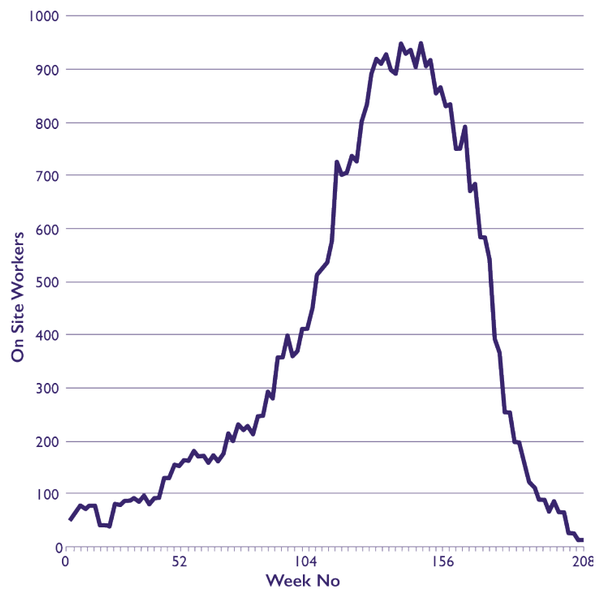
Shared routes, bottlenecks or noisy welfare areas can affect patient experience, service continuity and staff movement.

Productivity and Programme Delivery

Long walks to site, poor site welfare, or overcrowded access gates reduce productivity and increase fatigue. Efficient, predictable access helps standardise site rhythms and support repeatable processes, essential for high-productivity

Planning and Public Perception

Construction workers are highly visible on hospital sites. Well-managed people movement helps maintain patient confidence and Trust reputation.

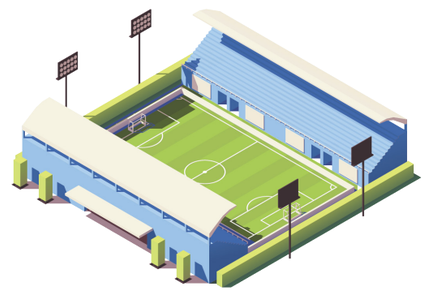


Indicative labour profile - based upon 80,000m² scheme (adopting MMC)

What Good Looks Like

- Plan overlay that identified pedestrian movements of staff and patients and construction workers – with clear distinction and segregation between the two.
- **A defined workforce access and movement strategy** – Clearly segregated pedestrian routes, security protocols, and separate construction entry points
- **Welfare facilities sized and located for the programme** – Including infection control, hygiene management, and safe utility servicing
- **Forecasts of workforce demand aligned with programme phasing** – Enabling proactive planning of facilities, access and local impact mitigation
- **People movement plans coordinated with vehicle logistics** – Minimising crossover, conflicts and safety risks during peak periods
- **Access and safeguarding protocols agreed with the Trust** – Ensuring construction activity respects hospital boundaries and public protection standards

Crudely, an 80,000 m² new-build hospital project is likely to require circa 950–1,100 workers at peak - the same number of people you'd find attending a San Marino international football match.



Ensuring productivity for this volume of workers is critical –half an hour of lost time due to inefficiencies, even if affecting only half the peak workforce (e.g. 500 workers), would, at a day rate based on £25 per hour, equate to £32k wasted per week.

With labour often representing 35-40% of the project cost, ensuring it is efficient is essential.

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E. Programme Integration

Logistics planning is a key driver of programme certainty. In complex projects, in complex environments - where phasing, access, and operational continuity are tightly constrained - logistics should not follow the programme; it should help shape it.

A logistics review helps ensure that the programme:

- Reflects physical site constraints, including compound setup, access, and haul routes
- Acknowledges predecessor activities and critical dependencies, such as service isolations or stakeholder sign-offs
- Embeds realistic lead-in periods for permits, temporary works, and approvals
- Is safe, buildable and deliverable within the boundaries of an operational estate
- Inform the projects cashflow and funding profile, identifying early expenditure activity and phased delivery
- Focuses design development on de-risking the critical path, with enough certainty to guide procurement and stakeholder engagement

At SOC and OBC stages, a logistics plan is needed to ensure the programme is robust and deliverable.

Checklist of Considerations

The following checklist outlines the key programme-related logistics considerations to be identified and tested early in project development.

Phasing and Sequencing

- Identify key programme phases – Including decant, enabling works, demolition, construction and commissioning
- Map logistical transitions between phases – Reflecting changes in access, workforce, compound, and material flow
- Integrate temporary works – into phasing sequence
- Test concurrent working scenarios – Identify where physical and resource constraints limit simultaneous activities

Trust Operations and Clinical Continuity

- Align programme with operational requirements – Consider working restrictions linked to live hospital estate
- Integrate key Trust dates and events – E.g. major equipment deliveries, ward moves, or operational black-out periods
- Identify key environmental interfaces and periods – relating to control and mitigation of vibration, noise, dust or disruption

Logistics-Driven Programme Risks

- Forecast site activity intensity – Correlate workforce numbers, delivery volumes and spatial requirements by programme phase
- Challenge sequencing and output assumptions – Stress-test linear programme logic and capacity assumptions for deliverability
- Identify early expenditure and procurement interfaces – Flag long-lead items (such as utilities, MEP plant or rig securing) that drive early spend or require advance procurement

Why It Matters

- **Programme Certainty**
  Logistics is one of the most common root causes of programme slippage. Programmes that doesn't robustly consider, plan and stress test access, or movement constraints can create delays and rework.
- **Constructability and Buildability**
  Physical constraints determine what can be built, when. Logistics provides the lens to test and verify that logic before design freezes.
- **Critical Path Focus**
  Logistics reviews help isolate the true critical path - enabling focused risk mitigation and design coordination for high-risk activities.
- **Design Feasibility**
  Temporary works, vertical movement, and compound phasing all impact structural design, building form, and MEP integration. Logistics ensures these influences are understood early.
- **Stakeholder and Approval Readiness**
  Many logistics elements (access changes, hoardings, service diversions) require consultation, permits, and planning approvals. These need clear lead-in time and coordination.

What Good Looks Like

- **An integrated design, procurement and logistics-informed programme** – A Level 2 construction programme shaped by early identification of constraints and aligned with logistics for vehicles, materials and people. Outputs should be informed by these insights, not generic benchmarks
- **Defined critical path and known enabling dependencies** – Including permits, approvals and stakeholder engagement milestones linked to site access or sequencing
- **Integrated logistics phasing plans** – Showing how construction and hospital movement (vehicles, materials and people) evolve over time across decant, enabling and main works
- **Stress-tested programme assumptions** – Supporting assumptions and risk register that have been reviewed, stress-tested and managed by the team.
- **Project Risk Register** – with defined, identifiable and managed risks in lieu of generic contingency provision
- **4D Visualisations for key points of sensitivity** – to demonstrate the viability of planned buildability

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5. Additional Considerations

While this guide focuses on the five core themes - constraints, vehicles, materials, people and programme - there are several adjacent factors that should be addressed to ensure a scheme is safe, productive and deliverable.

Many of these considerations sit beyond the formal scope of a Construction Logistics Plan (CLP), but are deeply connected to the development of a reliable delivery strategy. They become especially relevant at the OBC stage, when the logistics plan must integrate with spatial strategy, programme logic, design decisions, and procurement planning.

We encourage Trusts and design teams to explore these interdependencies in parallel with logistics planning to improve alignment, reduce risk, and strengthen deliverability.

Industrialisation & Repeatability

Despite sounding like something from 18th Century, the principles of industrialised construction - including standardisation, repeatable components, and modern methods of construction - are important and certainty have a direct impact on logistics and vice-versa. Developing an industrialisation strategy, integrated with NHS Hospital 2.0 principles, will help define how rationalised design and repeatable solutions influence site access, cranage, material handling and workforce needs. Aligning logistics planning with repeatable layouts and components will improve predictability, simplifies programming, and supports faster, more consistent delivery.

Procurement Interfaces & Early Package Strategy

The logistics strategy should inform how different phases of delivery connect - particularly where enabling works and main construction are delivered at different times and / or under separate contracts.

Key logistics elements such as land purchase for storage, new access roads, haul routes, hoardings or service diversions are often required before main works can commence, and their delivery must be carefully coordinated.

This interface between phases requires clear definition - both in terms of scope and timing - to avoid gaps, delays or duplicated infrastructure. Logistics planning can help identify where early enabling packages must create the conditions for main construction to proceed safely and efficiently.

In many cases, logistics-critical items will require early expenditure (e.g. crane bases, compound setup, enabling utilities) or will drive the need for advanced design development in select areas during FBC preparation. Recognising these dependencies early allows them to be built into the cost plan, procurement strategy and programme assumptions - reducing the risk of rework or funding misalignment later in the process.

Temporary Works Strategy

Temporary works are often invisible in early plans, but they carry critical programme and safety implications. Key areas for early consideration include:

- The sizing and availability of temporary and permanent services (not least power)
- The need for propping floor slabs
- The load-bearing capacity of slabs for temporary plant (e.g. MEWPs, spider cranes) and material storage
- The interface between temporary edge protection and the permanent façade or roof build-up
- Access for plant and equipment to potentially restricted zones such as basements, rooftops, and internal courtyards or finger zones
- Defined vertical and horizontal distribution routes across all phases

These factors often influence the productivity outputs and thus should be captured as part of early logistics planning.

Commissioning, Soft Landings & Internal Clustering

The logistics strategy must coordinate with the Government Soft Landings (GSL) approach and commissioning strategy.

Commissioning should be recognised as a distinct and logistics-dependent phase, with its own spatial and programme requirements. Logistics planning must ensure that temporary and permanent services are all available in line with the sequencing of handover protocols. Given that the ability to commission a hospital is often shaped by the most complex and highly serviced areas - such as imaging, theatres, critical care - project teams should assess how such spaces are grouped within the design to identify any logistical or spatial constraints that may affect phased readiness.

Equally, the operational transition is rarely a hard stop. In most cases, parts of the hospital will be occupied while decanting, demobilisation and remaining construction activities continue. This transitional phase must be accounted for in the logistics phasing plan to ensure safe separation and continuity of operations.

Stakeholder Engagement & Statutory Approvals

A number of logistics activities require engagement with third parties or advance statutory approvals. These may include:

- Planning conditions (e.g. CLPs, CTMPs)
- Road closures or access restrictions requiring Temporary Traffic Regulation Orders (TROs)
- Noise and vibration consents under Section 61
- Utility diversions and connections with long lead-in periods
- Approvals from NHS estates teams or other Trust governance bodies

Understanding the lead-in times and sequencing of these approvals is critical for programme and risk management.

Digital Logistics Planning

The increasing use of digital tools to support construction logistics offers new opportunities to improve accuracy, coordination and stakeholder engagement. 4D phasing models, logistics overlays in BIM, pedestrian flow simulations, and vehicle movement modelling are all tools that enable a project team to:

- **Visualise phasing and access challenges** to inform early-stage design decisions;
- **Communicate complex site logistics** to stakeholders through intuitive visual outputs;
- **Support planning activities during design and procurement** by mapping out constraints and testing various logistical strategies.

Setting the digital strategy at the OBC stage is essential. Early surveys such as laser scanning, environmental monitoring and coordinated digital design set the tone for a connected, intelligent site.

By embedding these capabilities early, the professional team lays the foundation for smarter, safer and more sustainable construction delivery.

Environmental and Social Value Outcomes

Finally, construction logistics should be recognised as a strategic tool for delivering environmental and social value. By adopting low-emission delivery methods, minimising disruption to local communities, and integrating local employment and training into logistics operations, projects can directly support wider NHS Trust objectives around sustainability, health, and community benefit.

As part of a broader strategy for Modern Methods of Construction (MMC) and industrialised delivery, the use of off-site or near-site logistics hubs and consolidation centres should be actively explored. These approaches can reduce site congestion, lower labour intensity, cut down on material waste, and create safer, cleaner working environments. In doing so, they contribute to more efficient, predictable deliveries and enhance the project's overall sustainability and social impact profile.

Digital Logistics Planning

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6.
Top 10 Questions to consider pre-FBC

1. Have we identified all the physical, clinical, operational, and environmental constraints that will influence the construction sequence?

If not, what critical risks are still unknown or undefined?

2. How will we maintain safe and uninterrupted access for emergency vehicles, patients, staff and FM services throughout all phases of the works?

What guarantees exist that blue-light routes, safeguarded zones or sensitive areas won't be compromised?

3. Do we understand the forecast volume and timing of construction-related activity, including workforce numbers, vehicle movements, and material deliveries?

Have we assessed the volume of workers and deliveries, and planned this, using capacity assessment, swept path analysis, strategy for peak-time coordination, etc?

4. What logistics approach will we use to ensure efficient material delivery, storage, and distribution on a constrained site?

How have we considered near-site or off-site consolidation, just-in-time delivery, or reverse logistics?

5. Do we have a clear and segregated plan for workforce movement and welfare that protects safeguarding and supports productivity?

How are workers, patients, and staff separated? How do people access the site, and how long does it take to move from welfare to workface?

6. Is our programme informed by logistics realities—such as access constraints, phasing sequence, lead-in periods, defined outputs?

Or is it a high-level Gantt chart based on standard benchmarks and assumptions?

7. Have we defined and integrated temporary works into the design, programme, and cost plan?

Are items such as temporary works and new and existing services coordinated?

8. Do we have enough space for material laydown areas, working space and safe people/vehicle movement at each phase?

Have we mapped the required space for material laydown areas, working space to the building perimeter, external service installations, vehicle and people circulation?

9. What digital tools (e.g. 4D sequencing, BIM overlays, flow simulations) are being used to visualise, coordinate and test the logistics plans during the design?

Have we digitally mapped and considered the constraints and temporary works relative to the permanent design?

10. How will our logistics strategy contribute to environmental and social value—such as local employment, low-emission transport, and reduced disruption?

Do we understand how our logistics plans support or inhibit Trust-level sustainability, net-zero, and community engagement goals?

Bonus: Whose responsibility is it for answering and actioning each of these questions? And is that defined?

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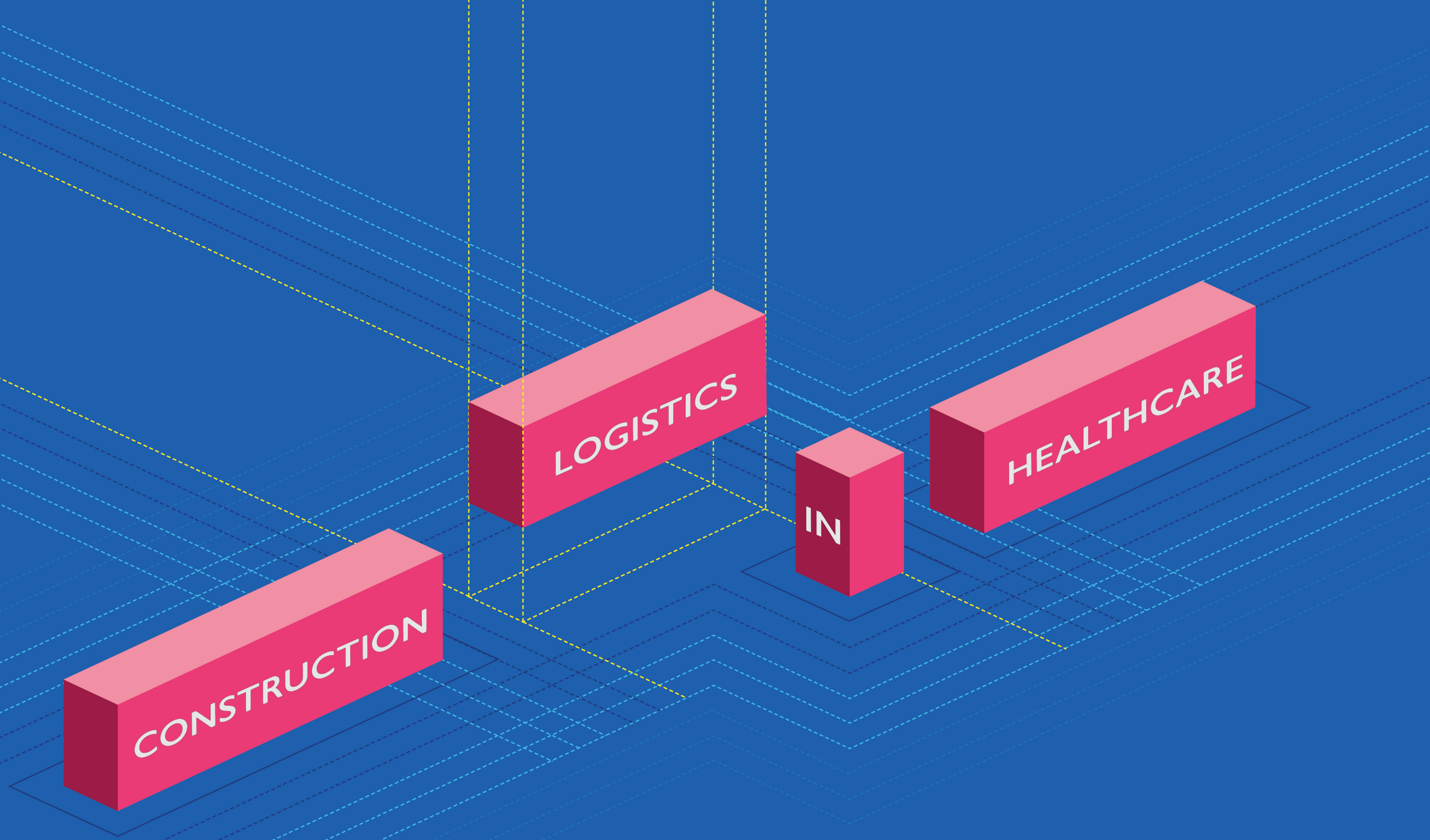

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