ARUP

Sheffield City Council

# Infrastructure Delivery Plan

## Part 2: Infrastructure Schedule Addendum

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NOTE:

This version of Infrastructure Schedule Addendum represents a minor update to the version initially published on in May 2025.

It sets out a minor factual correction around water supply, acknowledging that site SS19 would be supplied by Severn Trent Water rather than Yorkshire Water. Updates have been made within Section 2.2 to confirm that discussions have taken place with Severn Trent Water as well as Yorkshire Water as part of the process of producing the Addendum, and within Section 3.6 to reflect the correct position (as well as to reflect the output of those discussions). This version also confirms (in Section 4.6) Yorkshire Water's position on sewerage capacity for site SWS18, which had been inadvertently omitted from the May 2025 version.

Because an updated version of the Addendum has been produced, the opportunity has also been taken to incorporate additional detail around the costs of additional identified highway mitigation schemes in Section 4.1, for consistency with the Local Plan's Transport Assessment.

# Contents

# Executive Summary

The Infrastructure Delivery Plan (IDP) was initially produced in 2022-2023 to support the Sheffield Plan, prior to its submission for examination in October 2023. The original IDP has two parts – Part 1 comprises a Baseline Infrastructure Needs Assessment, and Part 2 forms the Infrastructure Schedule listing all new infrastructure required across the city as a result of new development in the Sheffield Plan.

This document forms an addendum to the Part 2 Infrastructure Schedule, setting out infrastructure requirements arising as a result of the proposed inclusion of 14 additional sites within the Sheffield Plan to address comments from the Inspectors examining the Plan. Those additional sites will provide around 3,950 new dwellings and just under 300,000sqm of additional employment floorspace. This addendum also sets out significant changes to the wider infrastructure baseline context across Sheffield over the time since the original IDP documents were first produced.

This addendum has been informed by ongoing engagement with infrastructure stakeholders. This has re-confirmed the fundamental conclusions from the original IDP, that there are currently no infrastructure types for which capacity constraints suggest a fundamental inability to deliver the quantums of growth envisaged by the Sheffield Plan, including from the additional sites.

Around 25 additional specific infrastructure schemes have been identified as a result of the inclusion of the additional sites in the Sheffield Plan. These are primarily focussed around highways, secondary education, primarily healthcare and sewerage. This is as anticipated, given that those infrastructure networks have previously been established as amongst the more city's more constrained networks at a baseline level.

A number of the schemes identified reflect the nature of the additional sites proposed for inclusion in the Sheffield Plan, which are edge-of-urban sites – whereas the spatial strategy in the submission version of the Sheffield Plan had more of a city centre and brownfield focus. For example, the additional sites will be not be able to have the same level of reliance on the existing sewer network in the city, with identified schemes therefore reflecting the need to provide new connections to locations not currently served by the sewer network.

This addendum to the Infrastructure Schedule has also taken the opportunity to reflect other areas of progress around infrastructure provision in the city. This notably includes the inclusion of schemes that would provide additional multi-faith burial provision on two of the additional sites proposed for

allocation, as a result of the Council's further work to identify solutions to increasing levels of need that were identified in the original IDP.

As was the case with the existing IDP, there are some areas where discussions with infrastructure providers have identified known or foreseeable future infrastructure needs, but where it has not yet been possible to identify an exact infrastructure scheme to mitigate those needs at the current time (although in such cases, there is sufficient confidence that specific schemes can be devised and delivered). It is therefore recommended that the IDP – both the existing Part 1 and Part 2 and this addendum – continue to be treated as live documents, being updated and periodically reviewed as the Sheffield Plan progresses into its implementation phase over the coming years. This will help to ensure that sustainable development is achieved in Sheffield, responding to the most up-to-date and comprehensive possible understanding of infrastructure needs as they evolve.

# 1. Introduction

## 1.1 Role of this addendum

1.1.1. Ove Arup & Partners Ltd (Arup) was previously commissioned by Sheffield City Council (referred to throughout as 'the Council') to prepare the Infrastructure Delivery Plan (IDP) Part 1: Infrastructure Needs Assessment1 and Part 2: Infrastructure Schedule2. Both were completed in 2023 ahead of the publication of the Regulation 19 Sheffield Plan, with the Sheffield Plan then being submitted for examination in October 2023. Minor updates were made to the IDP Part 2 Infrastructure Schedule to reflect the progression of evidence ahead of examination hearings (most recently in April 2024), but this did not change the overall strategic intent or conclusions of the IDP.

1.1.2. Following the Stage 2 examination hearings on the Sheffield Plan, the Inspectors have identified a shortfall in both housing and employment allocations, as set out in the Stage 2 post hearings letter[3]. The Council has now identified additional sites that will meet this shortfall. The evidence base supporting the Plan therefore needs to be updated to demonstrate that these additional sites can be accommodated, including in terms of infrastructure capacity in the IDP.

1.1.3. This document is an addendum to the existing IDP Part 2, and includes additions to the Infrastructure Schedule, for the specific additional sites which will be included in the Local Plan. It also provides updates on significant contextual changes around infrastructure provision in Sheffield over the period of approximately 18 months since the existing IDP Part 2 was first published.

1.1.4. The existing IDP Part 2, and the baseline infrastructure needs assessment in Part 1 of the IDP, are considered to remain broadly up-to-date. This addendum focusses on additional information regarding the additional sites and recent significant changes in baseline circumstances only, and the document should therefore be read in conjunction with the existing IDP Part 2 where relevant.

[1] Sheffield IDP Part 1 - Infrastructure Needs Assessment (sheffield.gov.uk)

[2] Sheffield IDP Part 2 - Infrastructure Schedule (sheffield.gov.uk)

[3] Sheffield Plan examination – Stage 2 post hearings letter from the Inspectors (sheffield.gov.uk)

## 1.2 Structure of this document

1.2.1. This Part 2 Infrastructure Schedule is intended to be read alongside the existing Part 2 Infrastructure Schedule. In addition to this introduction, the addendum contains three further chapters:

- **Chapter 2** sets out the methodology followed throughout the production of Part 2, and the structure of the Infrastructure Schedule.
- **Chapter 3** sets out updates to the baseline position set out in Part 1 of the IDP, by exception (i.e. only where there are changes or updates to report).
- **Chapter 4** sets out a summary of inclusions within the Infrastructure Schedule, set out across the six topics in the IDP and in the same order as set out in Part 1 of the IDP. It also sets out next steps to move towards the implementation of schemes within each topic.
- **Annex A** forms the Infrastructure Schedule itself and is laid out as a table ordered by infrastructure topic.

# 2. Scope and Methodology

## 2.1 Details of additional sites

2.1.1. Table 1 below sets out the details of the additional sites to be put forward for allocation in the Local Plan as part of the ongoing Independent Examination of the Sheffield Plan. These were agreed at an extraordinary meeting of the Council on 14 May 2025[4]. A total of 13 additional sites are proposed for allocation – these have a combined capacity to deliver 3,948 dwellings, and 296,360sqm of employment floorspace.

2.1.2. The spatial strategy in the Sheffield Plan as submitted for examination in October 2023 is primarily focussed on urban intensification on brownfield sites. By contrast the additional sites would be released from the Green Belt, and by their nature they are therefore more edge-of-urban and have slightly different characteristics in infrastructure terms. Whilst in some cases this means that the new sites may be slightly more distant from existing infrastructure, they could therefore also provide opportunities to deliver new infrastructure to serve needs arising from them.

| Site reference | Site address | Sub Area | Proposed Use | Gross Site Area | Estimated capacity (to 2039) | |
|---|---|---|---|---|---|---|
| | | | | | Housing | Employment floorspace |
| CH03 | Land bordered by M1, Thorncliffe Road, Warren Lane, and White Lane, S35 2YA | Chapeltown /High Green | Employment | 18.06ha | - | 71,880sqm (Class B8) |
| CH04 | Hesley Wood, north of Cowley Hill, S35 2YH | Chapeltown /High Green | Employment | 15.61ha | - | 56,480sqm (Class B8) |
| CH05 | Land to the east of Chapeltown Road, S35 9ZX | Chapeltown /High Green | Housing | 19.62ha | 549 | - |
| NES36 | Land to the south of the M1 Motorway Junction 35, S35 1QP | Northeast Sheffield | Employment | 16.37ha | - | 88,080sqm (Split Class B2 and B8) |
| NES37 | Land between Creswick Avenue and Yew Lane, S35 8QN | Northeast Sheffield | Housing | 30.34ha | 609 | - |
| NES38 | Holme Lane Farm and land to the west of Grenoside Grange, Fox Hill Road, S35 8QS | Northeast Sheffield | Housing | 6.72ha | 188 | - |
| NES39 | Land at Wheel Lane and Middleton Lane, S35 8PU | Northeast Sheffield | Housing | 5.30ha | 148 | - |
| NWS30 | Land at Forge Lane, S35 0GG | Northwest Sheffield | Housing | 2.56ha | 69 | - |
| NWS31 | Land between Storth Lane and School Lane, S35 0DT | Northwest Sheffield | Housing | 3.85ha | 103 | |
| SES29 | Handsworth Hall Farm, Land at Finchwell Road, S13 9AS | Southeast Sheffield | Mixed Use | 56.92ha | 770[5] | 80,000sqm (Class B2) |

[4] Agenda for Council on Wednesday 14 May 2025, 2.00 pm | Sheffield City Council

[5] The site has capacity for 870 dwellings in total, but it is anticipated that only 770 will be delivered within the plan period.

| Site reference | Site address | Sub Area | Proposed Use | Gross Site Area | Estimated capacity (to 2039) | |
|---|---|---|---|---|---|---|
| | | | | | Housing | Employment floorspace |
| SES30 | Land between Bramley Lane and Beaver Hill Road, S13 7JH | Southeast Sheffield | Housing | 36.55ha | 868 | - |
| SS19 | Land to the south of White Lane, S12 3HS | South Sheffield | Housing | 10.84ha | 304 | - |
| SWS18 | Land between Lodge Moor Road and Redmires Conduit, S10 4LU | Southwest Sheffield | Housing | 9.20ha | 258 | - |
| SWS19 | Land to the north of Parkers Lane, S17 3DP | Southwest Sheffield | Housing | 2.61ha | 82 | - |

**Table 1 – Details of additional sites proposed to be allocated in Sheffield Plan**

2.1.3. Six of the nine sub-areas of the city considered in the existing IDP will have additional sites. However, most of the additional development capacity can broadly be characterised as falling within two clusters – around the east of Chapeltown and north of Ecclesfield in the Chapeltown/High Green and Northeast Sheffield Sub Areas (1,494 dwellings and 216,440sqm of employment floorspace across sites CH03, CH04, CH05, NES36, NES37, NES38 and NES39), and around Handsworth in Southeast Sheffield (1,638 dwellings and 80,000sqm of employment floorspace across sites SES29 and SES30). The five sites within Northwest Sheffield, South Sheffield and Southwest Sheffield are more dispersed, and make up a relatively small proportion of the overall quantum of additional development.

2.1.4. The locations of the additional sites across the city are shown in Figure 1 below.

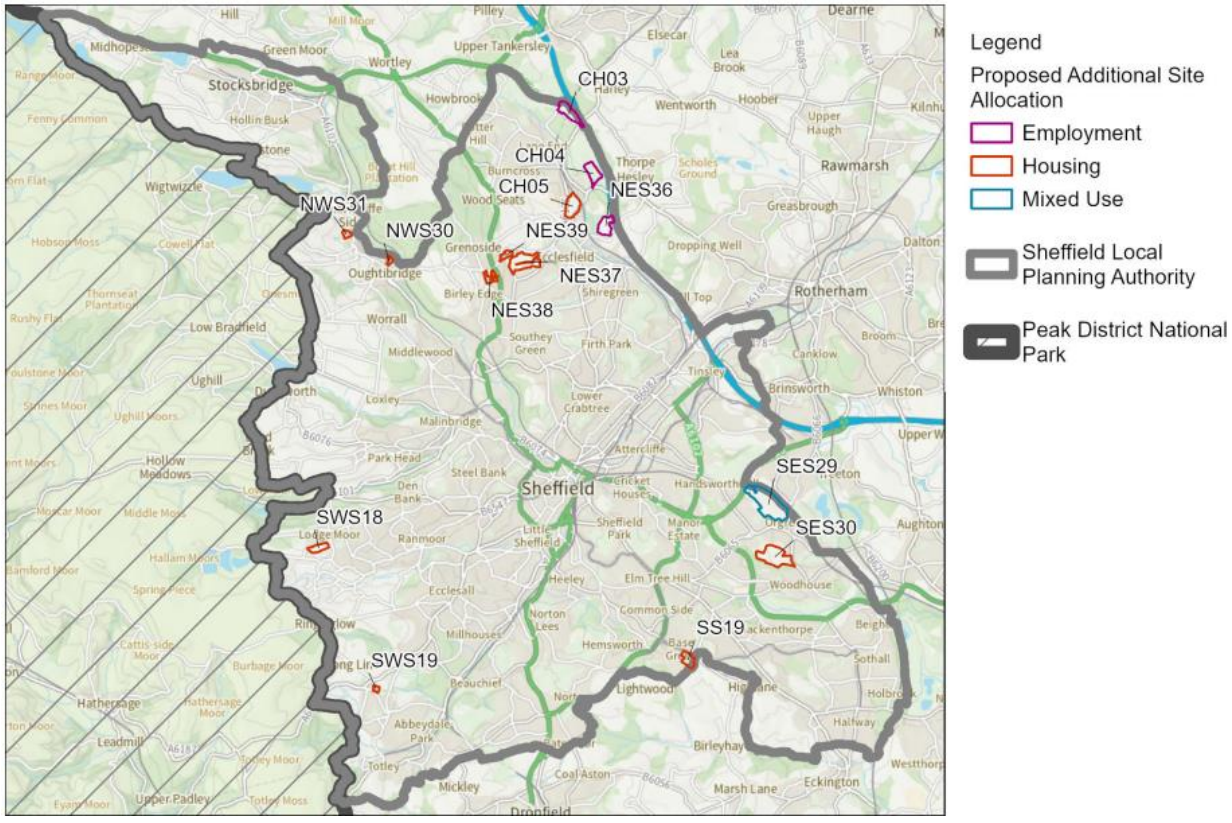


**Figure 1 – Locations of additional sites for inclusion the Local Plan (Source: Sheffield City Council)**

## 2.2 Infrastructure provider re-engagement

2.2.1. As part of the process to produce this addendum, we have re-engaged with infrastructure providers to understand the capacity opportunities and constraints arising from the additional development sites. Information provided by those infrastructure providers informed the understanding of infrastructure needs and requirements set out within the existing Part 1 and Part 2 IDP documents, and re-engagement has therefore been important to ensure that the IDP continues to provide an informed views on the implications of additional growth.

2.2.2. The list of sites above was shared with those infrastructure providers, along with information on the progress of the Local Plan examination, and the process for allocation of additional sites. This took place at a point in time where the list of additional sites was still being finalised through internal discussions within SCC, meaning that in some cases development capacities shared with infrastructure providers varied slightly from those now set out within Table 1 above, but the overall city-wide quantum of additional development was the same. It is not considered that the slight variation in the final sites has any adverse implications for the inputs provided by infrastructure providers, which has typically been general in nature.

2.2.3. Through the meetings and correspondence held with infrastructure providers, it has been discussed whether the additional sites could be accommodated within the existing infrastructure network capacity. Where this is not possible, discussions have explored what the implications would be in terms of mitigation measures and schemes that are required to accommodate the additional growth. Analysis has also had regard to how additional growth will sit alongside the quantum of growth already proposed in the Local Plan and the positions reached in Part 1 and 2 of the existing IDP, in order to understand whether any new trigger points are likely to be reached.

2.2.4. We have also taken the opportunity to explore with infrastructure providers whether any significant wider changes in background context have arisen since the publication of the original IDP in 2023, and which need to be reflected within this addendum. Table 2 below provides a summary of infrastructure providers re-engaged as part of the process of producing this addendum.

| Infrastructure provider | Infrastructure types discussed |
|---|---|
| Sheffield City Council | Highways<br>Active travel<br>Education |

| Infrastructure provider | Infrastructure types discussed |
|---|---|
| | Adult social care<br>Sports facilities<br>Community centres and leisure<br>Libraries<br>Burial and cremation services<br>Flood risk management |
| Sheffield City Region Mayoral Combined Authority | Public transport |
| NHS South Yorkshire Integrated Care Board | Primary healthcare |
| Severn Trent Water | Water supply |
| Yorkshire Water | Water supply<br>Sewerage |
| Northern Powergrid | Electricity supply |
| Veolia | District heat network |

**Table 2 – Infrastructure providers re-engaged as part of the production of this addendum**

2.2.5. For this addendum we have not sought to re-engage the following infrastructure providers who have previously been contacted regarding the IDP; the justification for not further engaging is provided below:

- Network Rail – Based on the positions reached previously in the IDP around railway provision, and limited direct interactions of the additional sites with the railway network, it has been considered appropriate to discuss these matters solely with the South Yorkshire Mayoral Combined Authority (given the latter's more planning and funding oriented role).

- South Yorkshire Fire and Rescue Service – It did not prove possible to engage the Fire and Rescue Service previously within Part 1 or Part 2 of the IDP. Given the previous lack of identified infrastructure requirements for fire and rescue provision, and the relatively limited overall additional scale of development resulting from the additional sites at a city-wide scale, it has not been considered an effective use of resources to attempt further engagement with the Fire and Rescue Service.

## 2.3 Structure of the Infrastructure Schedule

2.3.1. The Infrastructure Schedule set out in Annex A sets out the details of each additional specific infrastructure scheme currently anticipated as required within Sheffield over the plan period through to 2039, as a result of the additional sites set out in Section 2.1. These schemes have been identified through:

- Recent engagement with infrastructure providers specifically regarding the additional sites, as detailed within Section 2.2;

- Further consideration of the details provided by infrastructure providers as part of engagement on the existing Part 1 and Part 2 IDP documents in 2022/2023;
- Analysis and assessment undertaken by Arup, either to further develop responses from infrastructure providers or to fill gaps where responses have not been received.

2.3.2. Specific details of the basis upon which additional infrastructure requirements have been calculated are set out within Chapters 3 and 4 where relevant, but otherwise follow the approaches set out within the existing IDP documents.

2.3.3. Chapter 4 sets out a summary of the additional schemes included in the Infrastructure Schedule, the nature of these schemes, and identified next steps to further develop these schemes and move towards implementation.

2.3.4. The Infrastructure Schedule is set out in the same order as the headings for each infrastructure topic within the existing IDP. It provides consistent information for each infrastructure scheme, across the following columns:

- **Scheme reference** – For ease of reference, each scheme has been given a unique reference number.
- **Infrastructure type** – The infrastructure type under which the scheme sites. Some schemes are cross-cutting across several different infrastructure types.
- **Scheme description** – Summary details of the infrastructure scheme setting out its name, description and what aims to achieve.
- **Scheme location** – The city sub-areas (as detailed in Part 1 of the IDP) where the scheme would be located. For some schemes this will be more than one sub-area, may be citywide or may include other local authority areas where schemes are not solely located within Sheffield.
- **Delivery body** – The infrastructure provider and/or public body with responsibility for the delivery of the scheme Responsibility may be shared between several delivery bodies.
- **Funding method** – The means by which it is anticipated that funding for the scheme will be provided including whether this is likely to be via direct developer delivery, developer contributions paid to SCC, external funding sources or not yet known.

- **Delivery phasing** – The broad timescales within the plan period where it is anticipated that the scheme will be delivered, broken down into five-year tranches – 2024-2029, 2029-2034 and 2034-2039. These are based upon the time likely to be needed to fund and develop the scheme, and where relevant these are also linked to the anticipated phasing of delivery of sites in the vicinity to which the delivery of infrastructure will need to be linked. For this addendum, new schemes identified as being required in the short term will still be indicated as being phased between 2024-2029 for consistency with the existing IDP infrastructure schedule, notwithstanding the earliest possible delivery date being in 2025 at the time of writing.

- **Prioritisation** – To support future investment and funding decisions, schemes have been assigned a recommended priority level based on our assessment of their relative significance. It should be noted that these may not necessarily reflect future political and infrastructure provider decisions about how investment should be targeted and should therefore be treated as indicative. They are intended to be a practical and pragmatic basis upon which the Council can begin to make decisions when faced with the need to balance competing priorities. The prioritisation should not be interpreted as indicating that lower priority schemes are not important to make development acceptable in planning terms, and developers will still be expected to make contributions to provide infrastructure needs as far as is viable.

    - **Integral** – Infrastructure that is required for the basic day-to-day function of developments, must therefore be provided, and is non-negotiable. This typically includes connections to infrastructure networks and will often be triggered by the commencement of development.

    - **Fundamental** – Infrastructure that will mitigate impacts arising from development and which is necessary to meet the needs of residents and businesses, with significant inconvenience resulting if acceptable provision is not made. Fundamental schemes might also be needed to address wider societal pressures, such as the climate emergency. Such schemes will often be required upon the first occupation of new development and will therefore need to be planned well in advance.

    - **Beneficial** – Infrastructure that will help to achieve place-making and sustainability objectives and/or improve operational infrastructure capacity. Such schemes could be delivered at any time, and whilst developments and places

might continue to be functional if provision is not made, there would be fewer wider benefits to society.

- **Source of scheme** – The infrastructure provider, strategy or evidence base document through which the scheme has been identified.

2.3.5. The Infrastructure Schedule in the existing Part 2 IDP document contains a number of schemes which have now been delivered, either in part or in full. We have not sought to revise those schemes within the scope of this addendum, as the Part 2 document as a whole is reflective of a point on time, and has been subject to wider consideration as part of the examination of the Sheffield Plan.

2.3.6. As the Local Plan moves into its implementation phase, the Council may wish to revise the Infrastructure Schedule on a regular basis, as part of the process of treating it as a 'live document'.

# 3. Updates to infrastructure baseline since previous IDP

## 3.1 Transport

### Changes since original IDP

3.1.1. Part 2 of the IDP set out a series of mitigation measures required to accommodate the sites included within the submitted Local Plan. From the high-level discussions undertaken with the Local Highway Authority it is understood that there have been limited changes to the mitigation measures for the Strategic Road Network and Local Road Network in the intervening period, although some will need to be reviewed in light of the additional sites coming forward.

3.1.2. However, through the Council's ongoing discussions with National Highways, a number of minor clarifications have been established around the schemes set out in Part 2 of the IDP:

- Paragraph 3.1.13 of the existing Part 2 document indicates that five junctions on the Strategic Road Network (SRN) would be impacted by growth taking place across the city, and require improvements to accommodate additional traffic. It should be clarified that there are six junctions on the SRN in total including M1 Junction 34, as was set out in Table 6 of the document (with the scheme required in that location arising seperately following the AIMSUN modelling process.
- Table 3 of the existing Part 2 document identifies site allocations which will have impacts on SRN junctions. It is important to note that other committed sites will also have impact on the SRN (with these having been accounted for within the modelling).
- Within Table 6 and Scheme TR07 of the existing Part 2 document, the reference to M1 Junction 34 North should instead be to M1 Junction 34 North (Northbound) – reflecting the split nature of the junction.
- Scheme TR02 set out in the Infrastructure Schedule, relating to M1 Junction 34 as a whole, should now be amended to reflect two different scenarios (with the decision on which scenario is taken forward needing to be made as the plan progresses):
    - Scenario 1 – Mitigation A (a new dedicated left turn slip road onto the M1 northbound from Meadowhall Road at M1 Junction 34 North, and an extra circulatory lane between the M1 off-slip and Sheffield Road to provide three lanes in each direction on Sheffield Road, at M1 Junction 34 South).

- Scenario 2 – Mitigation B (an additional off-side lane merge at the Meadowhall Road exit to provide a three-lane exit, with a reduction to two circulatory lanes between the Tinsley Viaduct and Meadowhall Road, at M1 Junction 34 North), and Mitigation C (an additional lane on the M1 off-slip and on the roundabout at Meadow Bank Road, allowing for additional capacity through the junction from the M1 southbound to Meadowhall Road, at M1 Junction 34 North).

- The delivery phasing for some schemes set out within the Infrastructure Schedule should be considered to be indicative, and the delivery timescales for these schemes should be kept under review.

3.1.3. With respect to public transport, discussions with SCC officers and with the South Yorkshire Mayoral Combined Authority (SYMCA) noted that the future policy position around the public transport network is ever evolving, particularly as a result of changes in government funding priorities at a national level. This has included cancellation of the Restoring Your Railways programme in July 2024, which would have resulted in the reopening of the Barrow Hill Line to passenger services, with new railway stations in Killamarsh and Beighton (as well as new stations further south within Derbyshire). However, SYMCA and SCC continue to explore options to bring forward improved public transport connectivity, including consideration of other potential funding sources for the Barrow Hill Line reopening.

3.1.4. In October 2023 the Government also cancelled the eastern leg of High Speed 2, which would have served Sheffield.

3.1.5. None of the growth in the Local Plan was explicitly reliant on these schemes being delivered, and their non-delivery would not have any adverse implications for the ability to accommodate growth. The Council continues to work with SYMCA and other key stakeholders to secure investment.

### General implications of proposed additional sites

3.1.6. Updated modelling has been undertaken by SYSTRA on behalf of the Council, to consider the highway network implications of the additional sites to be included in the Sheffield Plan. This has identified that most of the junctions within the Local Highway Network that have been tested do not require any additional mitigation schemes to be developed to accommodate traffic arising from the additional sites. The majority of mitigation schemes previously identified in the IDP also remain sufficient to accommodate flows resulting from the additional sites.

3.1.7. There is one junction on the Local Highway Network which requires additional mitigation, summarised in Chapter 4. Additional interventions have also been identified at three locations on the Strategic Road Network in order to accommodate traffic flows from the additional sites, although these are not required in the short term, with ongoing monitoring to assess the need for them in the medium/ longer term.

3.1.8. In terms of public transport, whilst the additional sites are edge-of-urban by nature, all are nevertheless well located with respect to existing bus stops and services. Sites CH04, CH05 and NES36 are also located relatively close to Chapeltown Railway Station, and sites SES29 and SES30 are adjacent to the proposed new station at Waverley (scheme TR30 in the existing IDP Part 2 Infrastructure Schedule), which is separate to the Barrow Hill Line scheme affected by the cancellation of the Restoring Your Railways programme. The development of sites in the vicinity of existing public transport infrastructure can support the case for investment in public transport improvement schemes, and it may be appropriate for developer contributions to provide funding for their delivery.

## 3.2 Education

### Changes since original IDP

3.2.1. In Part 2 of the IDP a surplus of around 1,200 primary school places was anticipated in the furthest forecast year of 2026/27, with 2022/23 academic year forecasts indicating there would be 5,700 pupils on roll against a capacity across the city for 6,900. As part of this update Local Education Authority (LEA) officers within SCC have provided us with updated forecasts, now through to 2028/29, which indicate that the baseline number of pupils on roll is forecast to decrease slightly to approximately 5,600 at reception level (when also factoring the pupil yields from new development, including the additional sites). However, at the same time the overall capacity has also decreased slightly to around 6,800 pupils across the city, meaning that the forecast reception place surplus remains at around 1,200 pupils. As before, primary education provision is therefore not considered a constraint to growth across the city, with there only being a potential need for limited localised school expansions in the later part of the plan period, depending on build-out rates and wider demographic changes.

3.2.2. There has however been a more significant change in forecast secondary education capacity. In Part 2 of the existing IDP, forecasts covering the period from 2023/24 to 2032/33 anticipated that there would be a short-term peak in demand and resultant capacity shortfall (due to the early 2010s surge in births), but that this would improve from 2025/26 onwards

resulting in a surplus of around 350 Year 7 places by the end of the forecasting period. The latest forecasts covering a period from 2025/26 to 2035/36 now show that there will be a Year 7 capacity deficit over a longer period of time from 2026/25 to 2029/30, which is anticipated to peak in the academic year 2027/28. This reflects increased levels of inward migration to Sheffield, as well as small increases in birth rates in the early 2020s (which will result in secondary-age pupils within the latter parts of the forecast period).

3.2.3. The 2023 IDP Part 2 also identified a potential long-term need for a future city centre secondary school to accommodate demand (reflecting the Central Sub-Area being the location of a large amount of the growth coming forward), but this was not certain enough to be identified in the Infrastructure Schedule. The need for a city centre school has continued to be considered, including exploration of potential sites to identify viable options, alongside scoping of a business case. However, it is understood that the process of identifying an appropriate and deliverable site within the city centre may take too long to allow a new school to be ready in time for the upcoming forecast peak deficit in places, given this is effectively only in three years' time. The Council's current places strategy is therefore focussed on expanding existing secondary school provision to accommodate demand, to ensure both sufficient capacity and long-term sustainability, with LEA officers currently exploring a number of school expansion options across the city to be able to meet the shortfall more quickly. The proposal for a city centre secondary school will however remain as a desired option for the future.

### General implications of proposed additional sites

3.2.4. The scale of forecast demand means that secondary school capacity will continue to be constrained across Sheffield, with or without demand from additional sites to factor in. In general, the additional sites will increase the extent of the forecast secondary pupil place deficit across the city. Through our discussions with them, LEA officers have provided surplus/deficit figures for the Planning Areas that the additional sites proposed for inclusion within the Sheffield Plan are located within, based on modelling and analysis of pupil demand across all age groups.

3.2.5. Annual forecasts of school places are prepared by the LEA using underlying demographic data broken down by pupil age and postcode. Current migration patterns are applied to uplift or reduce child numbers city wide and by area, and growth locations are aggregated to school planning areas.

3.2.6. The Department for Education's annual school capacity survey (SCAP) is undertaken in June and July each year, looking at gaps between capacity and forecast place need. This is the tool used to assess the Council's basic need allocation for creating new places. Additional pupil yield from new housing is currently calculated at a rate of 3 pupils per year group per 100 houses of two bedrooms or more, consistent with the approach used at the time of the existing IDP.

3.2.7. As with the existing IDP, at this stage only the total number of dwellings proposed to be allocated in the Sheffield Plan (including the additional sites) is known. This means that it is not possible to calculate the pupil yield with accuracy until plans detailing the type and size of homes to be developed on a site come forward at the development management stage. This also reflects the inevitability that the location of windfall development on sites not being allocated in the Sheffield Plan cannot be known.

3.2.8. Table 3 below sets out the surplus/deficit figures in forms of entry (FE), both for the end of the forecast period (2035/36) and the peak year of demand:

| School Planning Area | Additional sites | Total Y7-Y11 demand from additional sites | Peak surplus/deficit | 2035/36 surplus/deficit |
|---|---|---|---|---|
| Area 1 (West and Southwest) | SWS18, SWS19 | 0.41FE | 11.1FE deficit (2030/31) | 11.6FE surplus |
| Area 2 (Northwest) | NWS30, NWS31 | 0.86FE | 0.9FE surplus (2029/30) | 13.0FE surplus |
| Area 3 (Chapeltown/High Green) | CH05, NES37, NES38, NES39 | 4.43FE | 8.7FE deficit (2033/34) | 7.2FE deficit |
| Area 6 (Southeast) | SES29, SES30, SS19 | 7.35FE | 0.4FE deficit (2029/30) | 4.7FE surplus |

**Table 3 – Forecast secondary education capacity surplus and deficits, for planning areas with additional sites, as indicated by LEA officers**

3.2.9. For Planning Area 1 there is a significant forecast peak capacity deficit, but the pupil yield from the additional sites proposed for inclusion in the Local Plan is minimal, and the additional sites will therefore only have a minor impact on the existing forecast pressures. For Planning Area 2 there will remain a surplus of pupil places throughout the forecast period (albeit relatively marginal in the peak year), with the relatively minimal pupil yield from additional sites in this area also only having a minor impact.

3.2.10. In Planning Areas 3 and 6, the larger scale of growth means that larger pupil yields will have a more significant impact. For Planning Area 6, whilst there will be a forecast capacity deficit in 2029/30, this is before it is anticipated the dwellings from the additional sites within the area will have been completed (2032/33 onwards). By the time those new dwellings do come forward, there is forecast to be a surplus in secondary school places.

3.2.11. Within Planning Area 3 there will be a particularly large and sustained capacity deficit throughout the whole of the forecast period, which will be added to by demand from the additional sites.

3.2.12. Ultimately, school catchments and individual pupil's journeys to school straddle planning areas, and the approach to meeting demand needs to be considered on a citywide basis. It may therefore be the case that pupil demand arising from sites in school planning areas with capacity surpluses still results in the need for additional infrastructure. However, the need for additional infrastructure is anticipated to be greatest within the school planning areas with the highest levels of deficit. Additional school capacity schemes are therefore set out within Chapter 4.

## 3.3 Healthcare

### Changes since original IDP

3.3.1. There was a relatively limited degree of specific input from the Integrated Care Board for both Parts 1 and 2 of the IDP, partly as an anticipated Primary Care Estates Plan had not yet become available. However, in Part 2 of the IDP it had been established that the planned growth in the Central Sub-Area would significantly exceed available primary care capacity in that part of the city. This resulted in an identified need for at least one new primary healthcare facility (comprising GP provision as well as mental care and community healthcare provision) in the Central Sub-Area.

3.3.2. This need has been reconfirmed through recent discussions with the ICB, and it is understood that a number of schemes are actively being brought forward across the Central Sub-Area in the short term to fulfil this. In addition, it is understood that growth around Kelham Island is likely to lead to a further new practice now being required due to the level of population growth anticipated and the distance from any existing facilities.

3.3.3. It is understood that the ICB is still producing future provision plans for each Primary Care Network (equivalent to the Primary Care Estates Plan previously understood to be being produced), but these have been delayed. However, at an overall level, there remain

constraints in existing primary healthcare provision across a large part of the city, with a likely need for surgery extensions to accommodate additional demand.

### General implications of proposed additional sites

3.3.4. The proposed additional sites are different in character to the existing sites included in the Local Plan, given their location on the edge of the city rather than within existing urban areas. This is likely to reduce the extent to which new patient yield arising from those sites could be absorbed in a dispersed way across a number of new surgeries (without necessarily always requiring expansion). However, all of the additional sites will still have existing primary care surgeries within relatively close proximity by which they can be served – none are inherently isolated.

3.3.5. The ICB has indicated that none of the additional sites are large enough to generate a need for a new surgery, either in isolation or in combination with other new sites nearby (given the typical need for a minimum of 10,000 patients for a new surgery or branch surgery, equivalent to the patient yield from around 4,500 homes). Accommodating new patient demand is therefore likely to require some targeted extensions to existing surgeries. The ICB has not indicated any fundamental difficulty in accommodating this, but has indicated that it is likely to need to seek developer contributions to help pay for such extensions.

## 3.4 Green infrastructure

### Changes since original IDP

3.4.1. Through discussions with the Council, there are no significant identified contextual changes around green infrastructure provision in Sheffield since the publication of the existing IDP.

### General implications of proposed additional sites

3.4.2. The Council's Sports, Leisure & Health team has requested that sites providing more than 100 dwellings are subject to a sports needs assessment at the planning application stage, to determine site-specific evidence around needs for new playing pitches, and whether identified needs should be met on-site or off-site. These assessments should involve use of Sport England's Playing Pitch Calculator and the outputs of the Council's 2022 Playing Pitch Strategy, and reflect consultation with relevant national sport governing bodies.

3.4.3. Other green infrastructure requirements may also exist for the additional sites. The approach to establishing these should be consistent with the general principles established in the existing IDP.

## 3.5 Community facilities

### Sports and Leisure

#### Changes since original IDP

3.5.1. The Council's Sports, Leisure & Health team has indicated that it is currently developing a new Built Facility Strategy for sports and leisure provision. This will include a needs assessment for various facilities across the city, taking into account strategic housing sites (both the additional sites and those already included in the Sheffield Plan), and projected baseline population growth. The strategy will help to determine any specific requirements for indoor leisure facilities linked to new developments.

#### General implications of proposed additional sites

3.5.2. The new Built Facility Strategy will help to determine any specific requirements for indoor leisure facilities linked to the additional sites. However, currently there are no specific identified requirements for additional provision beyond those identified in the existing IDP.

### Bereavement Services

#### Changes since original IDP

3.5.3. Part 2 of the IDP identified the need for a new strategy for burial and cremation facility provision in Sheffield, including faith-based services.

3.5.4. This need has been reaffirmed through recent discussions with Sheffield City Council's Bereavement & Coronial Services. It is currently estimated that the city has between 6 and 8 years of remaining burial provision. Of the 16 cemeteries in Sheffield, six have no new grave spaces available, creating particular pressure in the south of the city. For Islamic burials, the estimated remaining provision is less, at between 3 and 4.5 years.

3.5.5. It is understood that the Service is in the process of developing a cremation and cemetery services strategy to set out plans for how these future needs will be met. The anticipated future need for land to meet needs is around 0.40 hectares per year – with up to 24 hectares being sought across the city as part of the process of producing the strategy. This will secure long-term provision to meet needs for the next 50 years.

3.5.6. Part 2 of the existing IDP also highlighted the emerging requirement to expand the city's public mortuary in response to anticipated increases in demand for the coroner's service.

The Bereavement & Coronial Service has begun work to scope future demand and explore options to future-proof facilities for this statutory service.

### General implications of proposed additional sites

3.5.7. The additional demands for bereavement services associated with the additional sites are modest, in the context of baseline demands (both from the existing population and the existing sites previously included in the Sheffield Plan). However, given the identified need for additional land to meet cremation and cemetery needs, the Council has established that land will be reserved within two of the additional sites for this purpose.

## Policing

3.5.8. Part 2 of the IDP noted that engagement with South Yorkshire Police had not resulted in any comments regarding the impact of the Sheffield Plan on policing infrastructure, nor were any specific infrastructure requirements identified at that time. This position remains unchanged, with South Yorkshire Police having confirmed that there are currently no additional specific infrastructure needs as a result of the additional sites.

# 3.6 Utilities

## Electricity and heat

### Changes since original IDP

3.6.1. Northern Powergrid (NPG) provides publicly available data on capacity within its electricity distribution networks, which is regularly updated. At the time that Part 2 of the IDP was produced, analysis suggested a need for NPG to eventually upgrade four substations across the city as a result of both baseline demand and additional demand from new development.

3.6.2. NPG's latest headroom data suggests that most substations across the city currently have available capacity to connect to new development – with an average headroom across the city of 13.1MW. The existence of this capacity is partly driven by assumptions around changing user behaviour as a result of increasing take-up of 'time of use' tariffs, which incentivise a reduction in users' peak electricity demand.

3.6.3. In terms of the city's District Heat Network, Veolia has indicated that it has successfully deployed a first in the UK AI control system which optimises the network to improve efficiencies and reduce carbon intensity, operating temperatures and pressures within the heat network. This enables them to maximise the potential of the heat network in readiness

for heat network zoning, as well as working with customers to help target performance improvements to their buildings and systems. Veolia has indicated that it will be able to accommodate more connections to the heat network by optimising the operation of the heat network. This is likely to be beneficial to the sites in and around the Central Sub-Area considered in the existing IDP.

### General implications of proposed additional sites

3.6.4. Depending on their electrification level, the number of homes that could be connected to the distribution network without triggering the need for significant additional reinforcement can vary significantly. For example, according to NPG's Code of Practice, a typical domestic customer with a heat pump may have an electricity demand of 6.1 kW. This means that the average demand headroom of 13.1 MW in the city could serve 2,100 new homes per substation (without considering any diversity in electricity consumption and cyclic nature of domestic demand). The diversity of consumption will make a substantial impact on the number of new homes that can be supplied by the local distribution network, as well as other non-residential demands.

3.6.5. Given the location of the additional sites on the edge of the city it is assumed that none will be served by the Sheffield Heat Network, with all having heating provided by electric heat pumps (given moves away from gas boilers in new homes). This assumption is factored into the demand estimates above.

3.6.6. Initial electrical demands have been calculated for each of the additional sites under consideration. When comparing these with the average forecast demand headroom levels across the city set out above, there is generally anticipated to be capacity to accommodate the additional sites without significant upgrades to the electricity network.

3.6.7. The headroom figures are an average figure for the city as a whole and will vary between individual substations. NPG has indicated that further exploration of capacity for individual substations will require significantly more detailed feasibility studies at the stage where developer connection requests are being made. This is therefore considered to be a matter for further consideration as the Sheffield Plan moves into an implementation phase, and at this stage does not appear to be a barrier preventing any of the additional sites from being able to come forwards.

## Water

### Changes since original IDP

3.6.8. All of the additional sites proposed for inclusion in the Local Plan are within the part of the city supplied by Yorkshire Water, except site SS19 which is in the southern part of the city supplied by Severn Trent Water. Yorkshire Water provides sewerage provision across the whole of the city.

3.6.9. Discussions with both Yorkshire Water and Severn Trent Water have not identified any significant changes of existing circumstances around water supply and sewerage provision in Sheffield since the existing IDP was produced. However, it is understood that Yorkshire Water is now seeking to engage with plan-making within its coverage area on a broader and more proactive basis, and this has meant that the responses provided to support consideration of the additional sites are slightly more detailed in nature than they were at the time of the existing IDP.

### General implications of proposed additional sites

3.6.10. Regarding water supply, the IDP Part 2 previously concluded that there are no anticipated issues with connecting new developments or providing sufficient capacity. Sheffield is not classified as an area of water stress, and discussions with Yorkshire Water and Severn Trent Water have indicated that there are not significant concerns about supplying water to the proposed additional sites.

3.6.11. For sewerage, Yorkshire Water previously identified that the combined sewer system in the Central Sub-Area may become a future constraint. This would require diverting surface water drainage from the combined system into a separate, new system. It is understood that this scheme is still likely to be required. Given the nature of the additional sites, it is not anticipated that they will place significant additional pressure on the sewer system in the Central Sub-Area.

3.6.12. However, modelling undertaken by Yorkshire Water has identified some potential impacts on the sewerage network in other locations as a result of the proposed additional sites. In some cases these are considered by Yorkshire Water to require significant levels of mitigation, as set out in further detail in Chapter 4. These are not preventative for development, but do need to be carefully managed to ensure that unacceptable adverse impacts to the sewerage network do not arise.

3.6.13. To support the effective management of sewerage infrastructure, it is recommended that policies for the additional sites incorporated in the Sheffield Plan with more significant constraints should include requirements to manage and minimise the rate at which surface water runoff enters the sewerage system. These policies could also recommend the benefits of early engagement with Yorkshire Water by developers, to scope out appropriate mitigation for the sewer system in more detail.

## Flood Risk Management

### Changes since original IDP

3.6.14. No significant contextual changes have been identified with relation to flood risk management.

### General implications of proposed additional sites

3.6.15. Discussions with officers within SCC responsible for flood risk management infrastructure have confirmed that none of the additional sites are in locations where they need to be 'enabled' by the delivery of new flood risk management infrastructure. Wider flood risk issues will still need to be considered as part of the development management process once planning applications for the sites come forward, but the additional sites are not fundamentally constrained by flood risk.

# 4. Summary of additional inclusions in the Infrastructure Schedule

4.1.1. This chapter provides a summary of the schemes identified as necessary following consideration and analysis of the impacts of the additional sites set out in Chapter 3, including the discussions that have taken place with infrastructure providers. The schemes set out are for individual infrastructure types where the need for additional schemes has been identified – there are no additional schemes for infrastructure types not listed.

## 4.1 Highways

4.1.2. Highway modelling undertaken by SYSTRA has identified a need for additional mitigation measures at one location within the Local Road Network (LRN). This would involve the creation of a 3-arm priority junction at Retford Road / Beaver Hill Road in Handsworth, to mitigate excessive queuing and delay otherwise forecast to arise as a result of increased volume of right-turning traffic into Beaver Hill Road in the PM peak. It is not currently anticipated that there will be any fundamental challenges in developing or delivering this scheme, with it being consistent in scale and cost to similar mitigation measures identified in the existing IDP. Work undertaken by SYSTRA has identified an approximate cost for this scheme of £300,000, and it is anticipated that funding is most likely to come from developer contributions.

4.1.3. For the Strategic Road Network (SRN), discussions with National Highways about the additional sites resulted in an ask for the Council to draw up upgrade schemes for parts of three M1 junctions in order to accommodate traffic flows from the additional sites. Work undertaken by SYSTRA has established approximate costs, as set out below:

- J33 southbound diverge – £1,200,000
- J35 northbound merge – £400,000
- J35a southbound merge – £225,000

4.1.4. It is understood that these SRN mitigation measures are unlikely to be required in the short term, and the requirement for them in the medium/longer term will be subject to ongoing review. The extent to which these schemes might need to be funded by developers or other capital programme sources will therefore need to be established in the longer term, as development in the Sheffield Plan comes forward.

4.1.5. A number of additional public transport and active travel improvements have been identified as a result of the additional sites. These are mainly in the vicinity of the larger sites and are outlined in the SYSTRA's updated 'Transport Assessment Public Transport and Active Travel Impacts and Mitigation report'. It is expected these would be deliverable through developer contributions, alongside wider improvements to public transport in the vicinity (such as bus service frequency improvements), and schemes identified in the existing IDP (such as scheme TR30, the proposed new railway station at Waverley).

4.1.6. Table 7 of the existing IDP Part 2 report indicated an overall total of 151 identified public transport and active travel mitigation measures. This total has now increased to 165. Table 4 below replaces the previous Table 7, reflecting the updated number of mitigation measures.

| Mitigation Type | No. of Interventions Proposed |
|---|---|
| New active travel links (footways and cycleways) following likely pedestrian and cyclist desire lines. | 61 |
| Improvements to bus stops (e.g. provision of upgraded shelters, Real Time Passenger Information). | 47 |
| Assessing the quality of existing active travel links/wayfinding, with improvements where necessary. | 18 |
| Installation and upgrading of crossings in the vicinity of SLP sites to aid active travel and calm traffic. | 13 |
| Changes to bus services (frequency and/or routeing) to better serve Sheffield Plan sites. | 17 |
| Improving pedestrian access (e.g. crossings/footway improvements) to bus stops closest to Sheffield Plan sites. | 9 |

**Table 4 – Updated total public transport and active travel mitigation measures identified in SYSTRA modelling**

## 4.2 Primary and Secondary education

4.2.1. As set out in Section 3.2 above, there is sufficient surplus in primary education provision within the city's existing schools. This means that, at a citywide level, it is anticipated that additional pupil demand from the additional sites can be accommodated without the need for significant additional primary school infrastructure. However, this should continue to be monitored over time as sites in the Local Plan are implemented, to establish whether the need for any future investment schemes will still arise.

4.2.2. Secondary education provision within Sheffield is already somewhat constrained with a number of specific schemes having been previously identified in the IDP Part 2, alongside the potential need for further new secondary school and special educational needs and

disability (SEND) provision. It has now been identified that a new city centre secondary school may be required in order to meet demand arising from sites already included in the 2023 submission version of the Sheffield Plan, and this will therefore now be identified in the Infrastructure Schedule as an additional scheme.

4.2.3. There are also now increased baseline levels of pressure for secondary education provision across the city, with some areas of particularly acute demand, particularly in Planning Area 3. The Infrastructure Schedule therefore identifies the likely need for further additional schemes to expand secondary school capacity.

4.2.4. The exact form of this additional capacity has not yet been fixed, with options continuing to be explored by the LEA:

- It may be that the new city centre school could address some of this demand (facilitating a wider rebalancing of demand across the city), but this requires a site to be identified and the viability of such a form of provision to be confirmed. Whilst the LEA has commenced this process, the timeframes and financial requirements for such a development mean that this is not part of the current strategy to address the peak in demand forecast in 2027/28.

- Extensions could be provided for one or more existing secondary schools across the city (additional to those identified in schemes ED03-ED07 of the existing IDP), in order to accommodate baseline pupil yields and those arising from the additional sites. The LEA is currently investigating extension options, and which of these might allow demand to be met by the time that it peaks.

- A new secondary school could be provided to meet demand, with this facilitating a wider rebalancing of school demand across the city. To allow for the possibility that this is required, two of the additional sites being allocated (NES37 and SES30) will reserve land for potential additional secondary school provision. In the case of the land reserved within site NES37, this will also include provision for new special educational needs and disability provision.

4.2.5. The LEA's strategy to mitigate growth in secondary school places continues to be to expand existing provision. The case for new secondary school provision (including a city centre school) remains under consideration due to the high level of pressure on the system. This activity will continue to be undertaken and overseen the Council's Education, Children and Families Policy Committee. At the current point in time it is understood that LEA officers are content that a range of options exist to provide sufficient secondary education capacity,

allowing demand to be met both from sites already included in the Plan, and the additional sites now also being proposed.

## 4.3 Primary healthcare

4.3.1. The ICB has considered which Primary Care Network (PCN) would most effectively serve each of the additional sites proposed for inclusion in the Local Plan. Having regard to baseline capacity and existing planned capacity enhancement schemes within each PCN, the ICB has provided comments on the likely scale of additional surgery space that would be required to accommodate demand. These are set out within Table 5 below.

4.3.2. The patient yield levels assumed are based on an ICB estimate of 2.30 patients per dwelling in the additional sites. This is notably higher than the 1.75 patients per dwelling assumed within the City Centre and 2.00 patients per dwelling assumed elsewhere in the city in the existing IDP, reflecting the likelihood of a greater share of larger family dwellings on edge-of-urban sites.

| Site reference | PCN | Patient yield | ICB indication of impact |
|---|---|---|---|
| NES37 | SAPA 5 | 1,401 | Anticipated to be sufficient capacity to accommodate patient yields, in the event that separate SAPA 2 Primary Care Hub scheme proceeds |
| NES38 | Network North | 432 | |
| NES39 | Network North | 340 | |
| CH05 | Network North | 1,263 | Need to reconfigure or create capacity for two additional consultation rooms within an existing surgery in the PCN. |
| NWS30 | Upper Don Valley | 159 | Relatively limited scale of growth, but limited existing capacity in the vicinity, so need to reconfigure or create capacity for one additional consultation room within an existing surgery in the PCN should be considered at planning application stage. |
| NWS31 | Upper Don Valley | 237 | |
| SES29 | Seven Hills | 1,771 | Need to reconfigure or create capacity for two or three additional consultation rooms within an existing surgery in the PCN. Need to also consider alongside growth in Rotherham. |
| SES30 | Townships 2 | 1,996 | Need to reconfigure or create capacity for two or three additional consultation rooms within an existing surgery in the PCN. Need to also consider alongside growth in Rotherham. |
| SS19 | Townships 2 | 699 | Need to reconfigure or create capacity for one additional consultation room within an existing surgery in the PCN. |

| Site reference | PCN | Patient yield | ICB indication of impact |
|---|---|---|---|
| SWS18 | West 3 | 593 | Relatively limited scale of growth, but limited existing capacity in the vicinity, so need to reconfigure or create capacity for one additional consultation room within an existing surgery in the PCN should be considered at planning application stage. |
| SWS19 | Portervalley | 189 | Relatively limited scale of growth, but limited existing capacity in the vicinity, so need to reconfigure or create capacity for one additional consultation room within an existing surgery in the PCN should be considered at planning application stage. |

**Table 5 – ICB indicated requirements for additional primary healthcare capacity as a result of additional sites**

## 4.4 Outdoor sport and playing fields

4.4.1. Nine of the additional sites meet the 100-dwelling threshold under which SCC will request use of Sport England's Playing Pitch Calculator to establish on-site playing pitch needs – CH05, NES37, NES38, NES39, NWS31, SES29, SES30, SS19 and SWS18. However, until assessments are undertaken, the exact nature of playing pitch (and other green infrastructure requirements) associated with each site are not known.

4.4.2. The Council has also requested that additional sites in close proximity to existing playing fields maximise opportunities to contribute to the improvement of those playing fields. Two schemes are identified in the Infrastructure Schedule to reflect this – for sites SES29 and SWS18.

## 4.5 Bereavement services

4.5.1. As noted in Chapter 3, there are relatively significant long-term needs for land for cemeteries and cremation across the city. The Infrastructure Schedule includes schemes to provide 4ha of land within two of the additional sites to meet the part of this need that will arise throughout the plan period – on sites NES37 and SES30. This will be provided as multi-faith burial grounds.

## 4.6 Sewerage

4.6.1. Yorkshire Water's comments on the level of mitigation required for each of the additional sites are summarised in Table 6 below. Yorkshire Water has categorised the potential level of difficulty in serving each site on a RAG (Red/Amber/Green) scale:

- **Red** - Significant mitigation may be needed due to known network and treatment capacity constraints in the vicinity of the site, or downstream.

- **Orange** – Moderate levels of mitigation may be needed due to known network and treatment capacity constraints in the vicinity of the site, or downstream.
- **Green** - No operational concerns, subject to conditions.

4.6.2. Yorkshire Water's comments within Table 5 also note the existence of sewerage assets within each site. Where these are significant, these have also informed the RAG scoring.

| Site reference | Sewerage assets within site | Sewerage capacity considerations | RAG scoring |
|---|---|---|---|
| CH03 | None | No concerns identified | |
| CH04 | None | Modelling indicates likelihood of downstream sewer flooding without mitigation | |
| CH05 | None | Modelling indicates likelihood of downstream sewer flooding without mitigation | |
| NES36 | None | Modelling indicates likelihood of downstream sewer flooding without mitigation | |
| NES37 | 375mm combined sewer, 225mm foul sewer, 2x 600mm foul sewer, 300mm surface water sewer with four outfalls all within site | Modelling indicates likelihood of downstream sewer flooding without mitigation | |
| NES38 | None | Modelling indicates likelihood of downstream sewer flooding without mitigation | |
| NES39 | 300mm combined sewer through and alongside site, combined sewer overflow short distance east of site – point of connection will be important to consider | Modelling indicates likelihood of downstream sewer flooding without mitigation | |
| NWS30 | Surface water sewer through site (unknown diameter), sewage pumping station standoff will need to be considered | Modelling indicates likelihood of downstream sewer flooding without mitigation, and limited capacity in network close to site | |
| NWS31 | None | No concerns identified | |
| SES29 | 300mm surface water sewer through site | No concerns identified | |

| Site reference | Sewerage assets within site | Sewerage capacity considerations | RAG scoring |
|---|---|---|---|
| SES30 | 375mm combined sewer along site boundary | Modelling indicates limited capacity in network close to site | |
| SS19 | 450mm surface water sewer through site | Records show evidence of some capacity constraints in network close to site | |
| SWS18 | 300mm surface water sewer through site | Modelling indicates likelihood of downstream sewer flooding without mitigation | |
| SWS19 | None | Modelling indicates likelihood of downstream sewer flooding without mitigation, and limited capacity in network close to site | |

**Table 6 – Sewerage assets and capacity constraints identified by Yorkshire Water, for additional sites**

4.6.3. The Infrastructure Schedule indicates where resultant mitigation schemes may be required. Yorkshire Water has indicated that it will need to develop these schemes in specific detail at a later stage as part of its ongoing asset management programme, and as part of discussions with developers as part of their connection process when building out on sites.

# Annex A – Additions to Infrastructure Schedule

| Scheme Reference | Infrastructure type | Scheme description | Scheme location | Delivery body | Funding method | Delivery phasing | Prioritisation | Source of scheme |
|---|---|---|---|---|---|---|---|---|
| TR58 | Transport - Strategic Road Network | M1 Junction 33 southbound diverge. Upgrade scheme will potentially be required on this part of the M1 junction. Exact details of scheme to be determined by SCC and National Highways at a later date. | East Sub-Area | National Highways | S.106 / CIL, SCC Capital Programme | TBC | Fundamental | SCC modelling work, in collaboration with National Highways |
| TR59 | Transport - Strategic Road Network | M1 Junction 35 northbound diverge. Upgrade scheme will potentially be required on this part of the M1 junction. Exact details of scheme to be determined by SCC and National Highways at a later date. | Northwest Sub-Area | National Highways | S.106 / CIL, SCC Capital Programme | TBC | Fundamental | SCC modelling work, in collaboration with National Highways |
| TR60 | Transport - Strategic Road Network | M1 Junction 35a southbound merge. Upgrade scheme will potentially be required on this part of the M1 junction. Exact details of scheme to be determined by SCC and National Highways at a later date. | Northwest Sub-Area | National Highways | S.106 / CIL, SCC Capital Programme | TBC | Fundamental | SCC modelling work, in collaboration with National Highways |
| TR61 | Transport - Local Road Network | Retford Road and Beaver Hill Road, 3-arm priority junction | Southeast Sub-Area | SCC | S.106 / CIL, SCC Capital Programme, SYMCA Capital Programme, CRSTS 1, CRSTS2 | 2029-2034 | Fundamental | SCC modelling work, in collaboration with SYMCA and other relevant LPAs |
| ED10 | Education - Secondary | Provision of a new city centre secondary school to support demand from existing sites proposed for allocation and wider baseline needs. Subject to the identification of a suitable and viable site, and the demonstration of a wider business case. | Central Sub-Area | SCC | Developer contributions | 2029-2034 | Beneficial | SCC (LEA) |
| ED11 | Education - Secondary | Provision of additional capacity to accommodate demand arising from increased baseline needs as well as from the additional sites, with the exact form of provision responding to further exploration of options by Local Education Authority school place planners within SCC. The first preference is understood to be extensions to existing schools, but land has been reserved within sites NES37 and SES30 in the event that this is required for new provision. | Citywide<br><br>(Land to be reserved in sites within Northeast Sub-Area and Southeast Sub-Area) | SCC | Developer contributions | 2024-2029 | Fundamental | SCC (LEA) |
| ED12 | Education – Special educational needs | Potential provision of additional capacity to accommodate demand arising from increased baseline needs as well as from the additional sites, with the exact form of provision responding to further exploration of options by Local Education Authority school place planners within SCC. Land has been reserved within site NES37 in the event that this is required for new provision. | Citywide<br><br>(Land to be reserved in site within Northeast Sub-Area) | SCC | Developer contributions | 2024-2029 | Fundamental | SCC (LEA) |
| HE02 | Health - Primary Healthcare | Reconfigure or create capacity for two additional consultation rooms within an existing surgery in the Network North Primary Care Network, to accommodate patient growth from additional sites. | Chapeltown/High Green Sub-Area | NHS South Yorkshire ICB | Developer contributions, potentially Department for Health funding | 2029-2034 | Fundamental | NHS SY ICB |
| HE03 | Health - Primary Healthcare | Reconfigure or create capacity for one additional consultation room within an existing surgery in the Upper Don Valley Primary Care Network, to accommodate patient growth from additional sites. | Northwest Sub-Area | NHS South Yorkshire ICB | Developer contributions, potentially Department for Health funding | 2029-2034 | Fundamental | NHS SY ICB |
| HE04 | Health - Primary Healthcare | Reconfigure or create capacity for two or three additional consultation rooms within an existing surgery in the Seven Hills Primary Care Network, to | Southeast Sub-Area | NHS South Yorkshire ICB | Developer contributions, | 2029-2034 | Fundamental | NHS SY ICB |

| Scheme Reference | Infrastructure type | Scheme description | Scheme location | Delivery body | Funding method | Delivery phasing | Prioritisation | Source of scheme |
|---|---|---|---|---|---|---|---|---|
| | | accommodate patient growth from additional sites. Need to also consider alongside growth in Rotherham. | | | potentially Department for Health funding | | | |
| HE05 | Health - Primary Healthcare | Reconfigure or create capacity for three or four additional consultation rooms within an existing surgery in the Townships 2 Primary Care Network, to accommodate patient growth from additional sites. Need to also consider alongside growth in Rotherham. | Southeast Sub-Area | NHS South Yorkshire ICB | Developer contributions, potentially Department for Health funding | 2029-2034 | Fundamental | NHS SY ICB |
| HE06 | Health - Primary Healthcare | Reconfigure or create capacity for one additional consultation room within an existing surgery in the West 3 Primary Care Network, to accommodate patient growth from additional sites. | Southwest Sub-Area | NHS South Yorkshire ICB | Developer contributions, potentially Department for Health funding | 2029-2034 | Fundamental | NHS SY ICB |
| HE07 | Health - Primary Healthcare | Reconfigure or create capacity for one additional consultation room within an existing surgery in the Portervalley Primary Care Network, to accommodate patient growth from additional sites. | Southwest Sub-Area | NHS South Yorkshire ICB | Developer contributions, potentially Department for Health funding | 2029-2034 | Fundamental | NHS SY ICB |
| GI15 | Green Infrastructure - Open Space and Public Realm | Site allocation SES29 should maximise opportunities to contribute to existing playing fields in close proximity of this site. | Southeast Sub-Area | SCC, developer(s) | Developer contributions / direct delivery in conjunction with housing development | 2029-2034 | Beneficial | SCC/Sheffield Plan |
| GI16 | Green Infrastructure - Open Space and Public Realm | Site allocation SWS18 should maximise opportunities to contribute to existing playing fields in close proximity of this site. | Southwest Sub-Area | SCC, developer(s) | Developer contributions / direct delivery in conjunction with housing development | 2029-2034 | Beneficial | SCC/Sheffield Plan |
| CF06 | Community facilities - Burial sites and crematoria | Provision of 4 hectares of land for multi-faith burial grounds within site allocation NES37. | Northeast Sub-Area | SCC, developer(s) | SCC capital funding | 2029-2034 | Fundamental | SCC |
| CF07 | Community facilities - Burial sites and crematoria | Provision of 4 hectares of land for multi-faith burial grounds within site allocation SES30. | Southeast Sub-Area | SCC, developer(s) | SCC capital funding | 2029-2034 | Fundamental | SCC |
| UT12 | Utilities - Sewerage | Capacity upgrades within network downstream of site CH04, to mitigate potential sewer flooding issues otherwise forecast to arise. | Chapeltown/High Green Sub-Area | Yorkshire Water | Yorkshire Water funding settlement and connection charges | 2029-2034 | Integral | Yorkshire Water |
| UT13 | Utilities - Sewerage | Capacity upgrades within network downstream of site CH05, to mitigate potential sewer flooding issues otherwise forecast to arise. | Chapeltown/High Green Sub-Area | Yorkshire Water | Yorkshire Water funding settlement and connection charges | 2029-2034 | Integral | Yorkshire Water |
| UT14 | Utilities - Sewerage | Capacity upgrades within network downstream of site NES36, to mitigate potential sewer flooding issues otherwise forecast to arise. | Northeast Sub-Area | Yorkshire Water | Yorkshire Water funding settlement and connection charges | 2029-2034 | Integral | Yorkshire Water |
| UT15 | Utilities - Sewerage | Capacity upgrades within network downstream of site NES37, to mitigate potential sewer flooding issues otherwise forecast to arise. | Northeast Sub-Area | Yorkshire Water | Yorkshire Water funding settlement and | 2029-2034 | Integral | Yorkshire Water |

| Scheme Reference | Infrastructure type | Scheme description | Scheme location | Delivery body | Funding method | Delivery phasing | Prioritisation | Source of scheme |
|---|---|---|---|---|---|---|---|---|
| | | | | | connection charges | | | |
| UT16 | Utilities - Sewerage | Capacity upgrades within network downstream of site NES38, to mitigate potential sewer flooding issues otherwise forecast to arise. | Northeast Sub-Area | Yorkshire Water | Yorkshire Water funding settlement and connection charges | 2029-2034 | Integral | Yorkshire Water |
| UT17 | Utilities - Sewerage | Capacity upgrades within network downstream of site NES39, to mitigate potential sewer flooding issues otherwise forecast to arise. | Northeast Sub-Area | Yorkshire Water | Yorkshire Water funding settlement and connection charges | 2029-2034 | Integral | Yorkshire Water |
| UT18 | Utilities - Sewerage | Capacity upgrades within network downstream of site NWS30, to mitigate potential sewer flooding issues otherwise forecast to arise, and address limited capacity in the sewer network in the vicinity of the site. | Northwest Sub-Area | Yorkshire Water | Yorkshire Water funding settlement and connection charges | 2029-2034 | Integral | Yorkshire Water |
| UT19 | Utilities - Sewerage | Capacity upgrades within network in vicinity of site SES30, to address limited capacity in the sewer network. | Southeast Sub-Area | Yorkshire Water | Yorkshire Water funding settlement and connection charges | 2029-2034 | Integral | Yorkshire Water |
| UT20 | Utilities - Sewerage | Potential capacity upgrades within network in vicinity of site SS19, to address capacity constraints in the sewer network. | South Sub-Area | Yorkshire Water | Yorkshire Water funding settlement and connection charges | 2029-2034 | Integral | Yorkshire Water |
| UT21 | Utilities – Sewerage | Potential capacity upgrades within network in vicinity of site SWS18, to address capacity constraints in the sewer network. | Southwest Sub-Area | Yorkshire Water | Yorkshire Water funding settlement and connection charges | 2029-2034 | Integral | Yorkshire Water |
| UT22 | Utilities - Sewerage | Capacity upgrades within network downstream of site SWS19, to mitigate potential sewer flooding issues otherwise forecast to arise, and address limited capacity in the sewer network in the vicinity of the site. | Southwest Sub-Area | Yorkshire Water | Yorkshire Water funding settlement and connection charges | 2029-2034 | Integral | Yorkshire Water |