



Together to Zero

Worthing Heat Network

Densification Phase 1

Route Statement

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Date	Comments	Reviewer



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1. INTRODUCTION

This document sets out the proposed alignment for the Worthing Heat Network (WHN) Densification Phase 1, providing detailed justification for the route selection and the anticipated impacts on residents, businesses, and the public realm. It reflects the lessons learned from earlier phases of network delivery and outlines how these have informed a more resilient and community-sensitive approach for this stage. The statement includes:

- The rationale for the chosen route and alternatives considered.
- A detailed analysis of tree impacts, including work within root protection zones.
- Consideration of impacts on gardens, conservation areas, and recent public realm improvements.
- Integration of construction planning with the town centre's existing event schedule.
- Mitigation strategies to minimise disruption during delivery.
- Local business and stakeholder engagement mapping.

2. PROPOSED ROUTE

The proposed alignment runs South from the Energy Centre at High Street Multi-Storey Car Park to connection points at the Pavilion Theatre and Splash Point Leisure Centre. It follows High Street, Brighton Road, Steyne Gardens, crosses Marine Parade onto the Promenade (east and west), and Beach Parade (cycle path).

The alignment was selected to:

- Avoid significant conflicts with underground utilities where practicable.
- Minimise disruption to residents, businesses, and events.
- Optimise constructability and limit time within key highways.

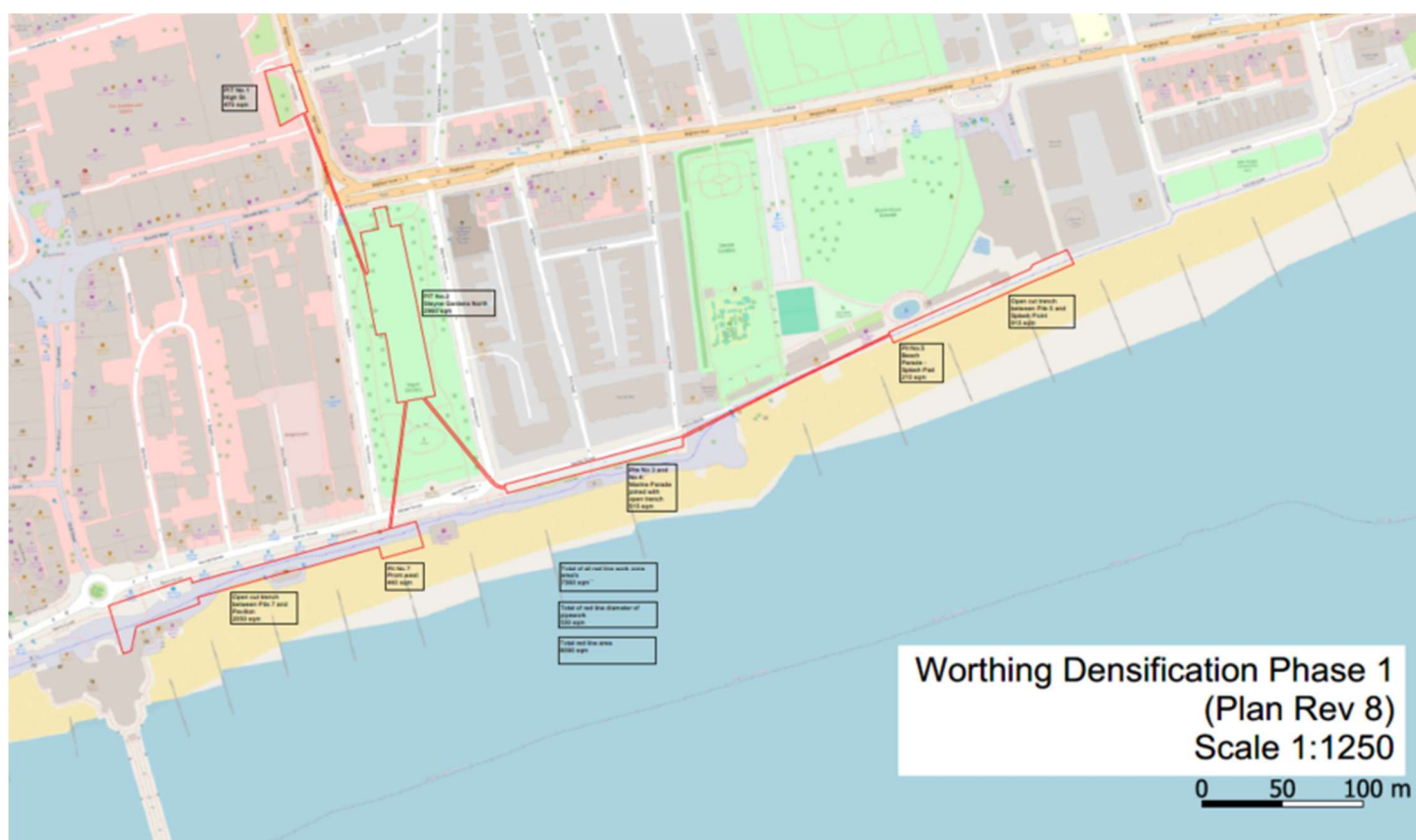


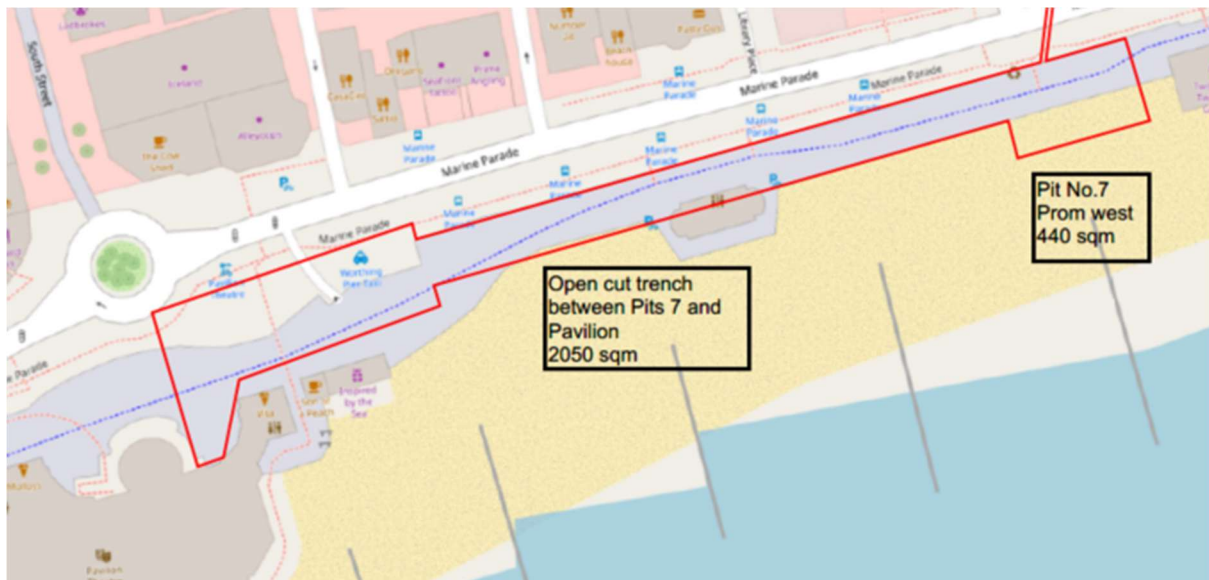
Figure 1 Red Line Boundary for Planning



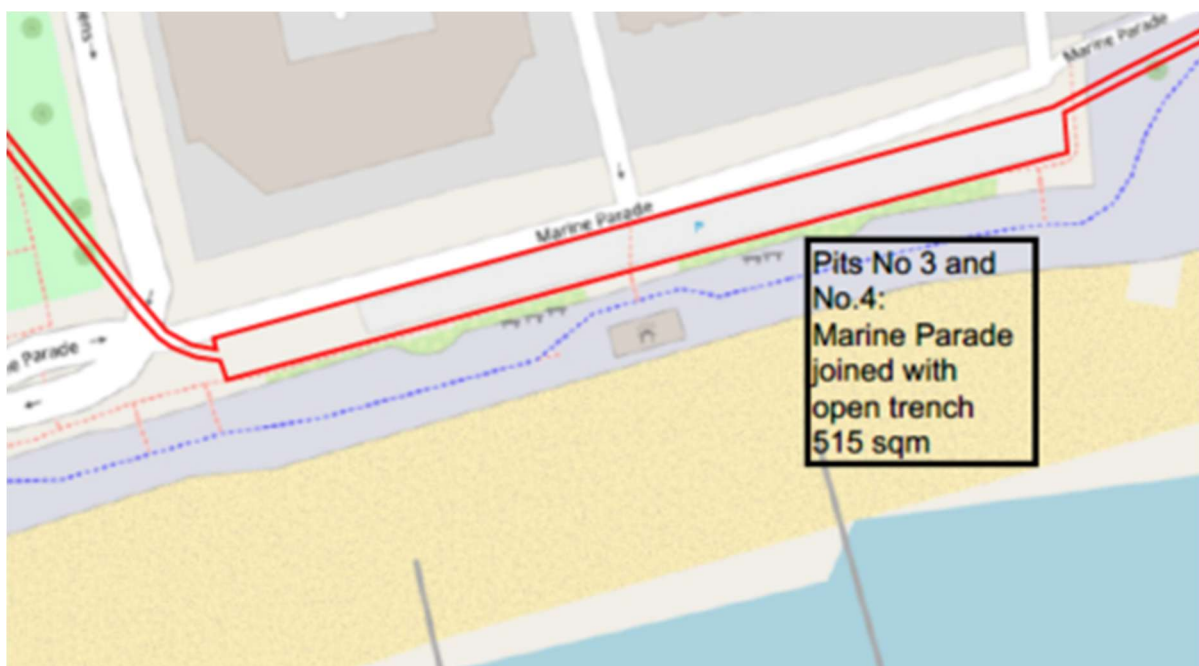
Although the original pipework route remains the same for the areas involved, the installation methodology for three areas have been reconfigured to allow for potential of HDD exposure to unsuitable ground conditions and increased likelihood of failure. This follows the results and analysis of below ground make-up via taking Bore Hole samples.

These areas are:

Promenade pit 7 (west) to the Pavilion connection point. This requires an alternate install option which will entail using a traditional open cut trench method.

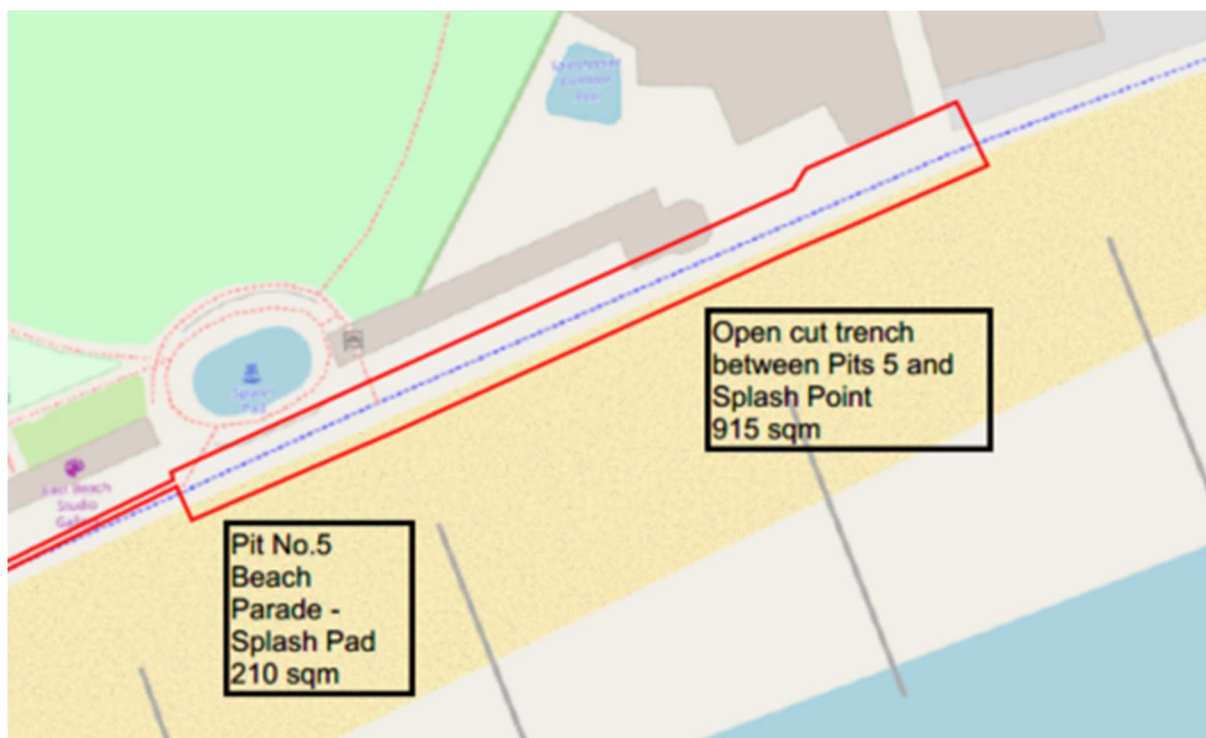


Marine Parade parking bays. HDD launch receiver pits remain at the east and west ends of the area. Pipework between each pit has a high probability of requiring open trench method.





Splash Pad to Splash Point. This requires an alternate install option which will entail using a traditional open cut trench method.



3. ALTERNATIVES CONSIDERED

During RIBA 1-2 design stage, several alternative options to the red-line route were assessed:

Brighton Road (to Splash Point) - Discounted due to extensive highways traffic management, diversions, parking bay suspensions, and the potential for local loss of tourism revenue.

- Chosen alternative: The promenade and Beach parade (cycle path).

The Steyne (road) - Discounted due to extensive highways traffic management, diversions, parking bay suspensions, and the potential for local loss of tourism revenue.

- Chosen alternative: Steyne Gardens.

Steyne Gardens (road) - Discounted due to extensive highways traffic management, diversions, parking bay suspensions, and the potential for local loss of tourism revenue.

- Chosen alternative: Steyne Gardens.

100% Marine Parade (road east to west) - Discounted due to extensive highways traffic management, diversions, parking bay suspensions, and the potential for local loss of tourism revenue.

- Chosen alternatives: 86% The Promenade. 14% Marine Parade (parking spaces only)

The proposed alignment provides the most robust balance of minimising disruption, deliverability, cost, and future resilience.



4. KEY DECISIONS

The below route decisions have been made following design reviews and stakeholder input:

Steyne Gardens:

- Hemiko have carried out ground investigations with results showing that the route and HDD pit excavation will not impact any buried structures within Steyne Gardens. Please refer to radar scanning and trial hole docs.
- A requirement to reduce construction duration spent within the Highway.
- Extensive engagement with WBC and WSCC members including the Events coordination and Parks teams.

The Promenade:

- Based on a requirement to reduce construction duration spent within the Highway.
- Increase productivity and shorten construction durations by increasing the available construction space within the redline boundary.
- Extensive engagement with WBC members including the Events coordination, concessions, and Engineering (sea defence) teams.

Horizontal Directional Drill (HDD) Installation:

The original proposed route will generally stay the same using HDD, however the highways and construction disruptions and impacts are minimised to localised work zones within 6No. specific areas (launch/receiver pits) to limit the requirement of open trench works that pose a higher level of generalised disruption overall. Hemiko's visible presence is reduced, as well as programme durations.

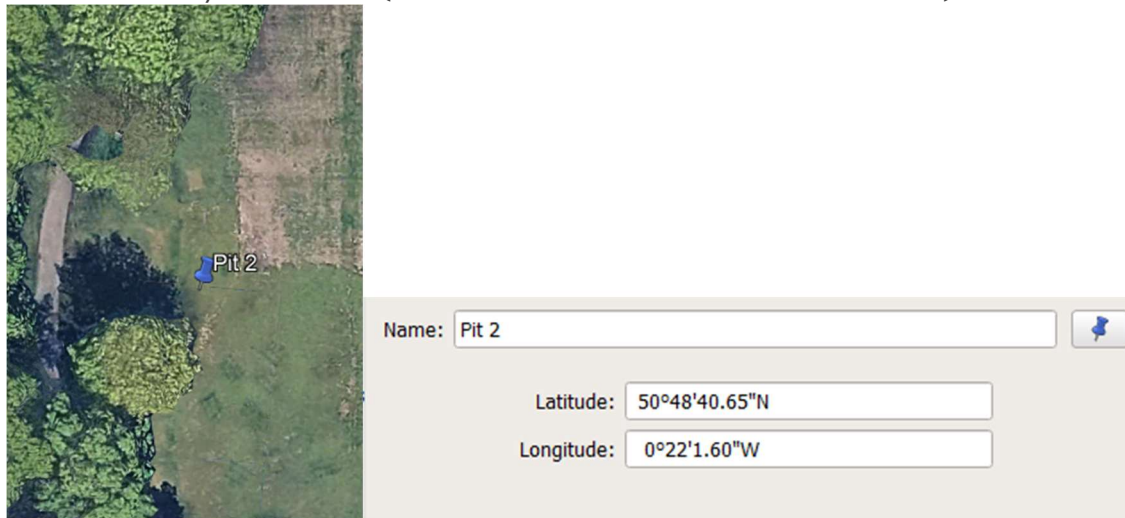
Launch/Receiver pit locations:

PIT No.1 - High St (MSCP NB entrance)

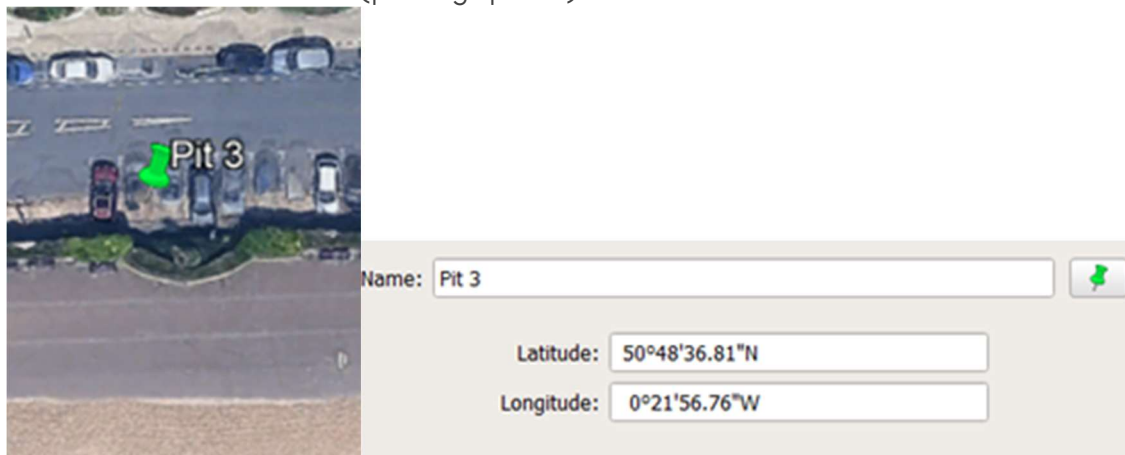




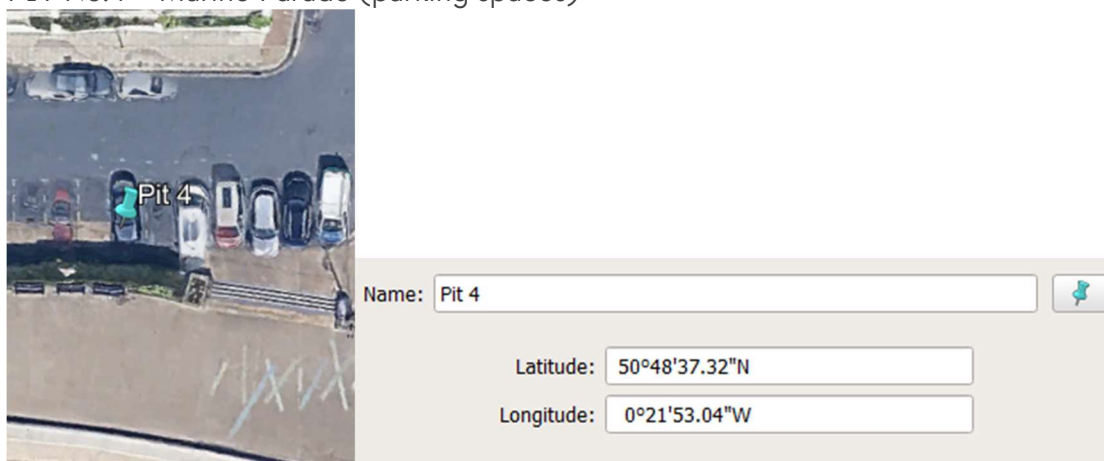
PIT No.2 – Steyne Gardens (SW corner of where the ice rink is located)



PIT No.3 – Marine Parade (parking spaces)



PIT No.4 – Marine Parade (parking spaces)



PIT No.5 – Beach Parade – cycle path – outside splashpad



Name: 

Latitude:

Longitude:

PIT No.7 – Promenade – SW of Gardens



Name: 

Latitude:

Longitude:



Traditional 'Open cut trench' installation method:

Due to coastal below-ground conditions posing a significant reduction to the success of certain HDD shots the following zones have been categorised as 'high risk of failure' and an alternate install method of 'open cut trench' will need to be factored into the planning variation. Previously granted in October 2025 as fully open trench, this return to include a flexible approach will enable the correct install method to be implemented when encountering these ground conditions.



Promenade West



Marine Parade



Beach Parade



5. LESSONS LEARNED FROM PHASE 1

Delivery of earlier phases highlighted challenges around traffic disruption, coordination with utilities, and maintaining safe pedestrian access in busy town centre environments. For Phase 1 densification we have taken the following actions:

- Design progression has allowed for the installation method of Horizontal Directional Drilling (HDD) to be feasible in suitable locations where below ground conditions are favourable. Areas identified as 'high risk' of failure are localised to the beach front zones identified above. All other areas are deemed suitable for HDD.
- Reduced the need to install within the highway where possible.
- Using HDD has scaled down the need for traffic management and has such allowed Hemiko to keep traffic flowing in all directions, whilst drilling is taking place.
- Pedestrian management around the Marine Parade/Promenade area will be designed in collaboration with local businesses and the Ice Rink to maximise and encourage footfall.
- Utility conflicts are being addressed earlier, following detailed radar and trial hole surveys.
- Below ground utility surveys are being modelled in 3 dimensions and will include service diameters. This additional measure allows for more accurate clash detection prior to construction.
- Stakeholder engagement is being carried out further in advance, including with WBC Events and Parks Teams and local businesses to ensure planned works align with local priorities.
- Public realm reinstatement standards have been raised, with WBC-approved landscaping teams engaged for sensitive areas.

6. TREES AND GREEN INFRASTRUCTURE

Initial arboriculture advice indicates that HDD works can proceed provided protective measures are applied, including:

- Tree protection fencing installed prior to works. This will be to an approved method statement.
- Reinstatement of soft landscaping with replacement planting.

These measures will be implemented under the guidance of WBC's Arbor cultural officer, ensuring compliance with BS5837 (Trees in relation to design, demolition and construction).

The depth in which the pipework is drilled and then pulled is beneath the 2m depth window usually occupied by mature tree roots. Hemiko intend to drill to a depth of between 4.5m – 8m to ensure all tree roots are avoided.

Once drill profiles have been received any areas of concern can be raised and discussed. At present Hemiko's Arboriculture specialist has raised no concerns regarding the location of the pit within Steyne Gardens.



7. CONSTRUCTION IMPACTS AND MITIGATION

The works will be delivered in phases from launch pit to receiver pit to minimise disruption. Mitigation measures include:

- Traffic management agreed with the highway authority.
- One working zone on the highway used by vehicles at any one time. High St and Marine Parade
- Safe pedestrian routes always maintained.
- Engagement with the WBC Events Team.
- Engagement with local concession and business owners.
- Using WBC approved landscaping teams for works within Steyne Gardens.
- Early engagement with statutory undertakers to manage utility crossings.
- Pioneering installation methods to speed up construction durations.

8. WORKING TIME

To facilitate the timely completion of works within Steyne Gardens, Promenade (inc. Beach Parade), and the associated highway network, extended working hours are proposed as part of the construction programme. This adjustment is intended to optimise productivity and compress the overall project duration, reducing the cumulative impact of construction activities on the public realm. The extension of site operating hours will allow for sequential and overlapping tasks to be undertaken more efficiently, enabling earlier release and reinstatement of key zones back to operational use.

From a planning perspective, the proposed working hours will remain within the parameters of Section 60 of the Control of Pollution Act 1974 and will be subject to agreement with the Adur-Worthing Planning Authority and Environmental Health Officer. Noise, vibration, and dust management measures will be implemented in accordance with the Construction Environmental Management Plan (CEMP) to ensure compliance with statutory thresholds and best practice guidance (BS 5228). By managing delivery through extended hours, the installation works will not only aim to achieve earlier handover of sensitive areas but also reduce the duration of disruption to businesses, residents, and users of the highway network, thereby aligning with both project objectives and regulatory obligations.

The construction programme will be coordinated to avoid undue interference with periods of high community use and visitor activity, with working practices adapted to minimise disturbance during these sensitive times. Where possible, non-intrusive or low-impact activities will be prioritised on such dates to maintain a balance between construction efficiency and community expectations. This ensures that while the works progress at an accelerated pace, the wider social and cultural calendar of the area is respected.

Extended working hour proposal:

- Monday-Friday: 8am – 7pm
- Saturday: 8am – 7pm
- Sunday: 8am – 7pm

9. BUSINESS AND CONCESSIONS.

Please refer to 'Statement of Community Involvement' document



10. STEYNE GARDENS IMPACTS AND MITIGATION

The route passes through Steyne Gardens, a conservation area, featuring trees, raised flowerbeds, seating, and formal landscaping. To mitigate impact of the drilling pit zone and working area, temporary works will involve:

- Removal, secure storage, and reinstatement of benches, if required.
- Tree protection measures.
- Landscaping reinstated to “existing or better” condition, with opportunities to refresh planting schemes in partnership with WBC.
- No impact on the war memorial, which will be protected throughout.

The use of HDD now allows Hemiko to install beneath the sensory gardens located in the South of the Gardens. Hemiko intend to occupy the North end of Steyne Gardens only, with no works at ground level in the vicinity of items sited within the South end. These are trees, the sensory garden, and war memorial.

11. PROMENADE IMPACTS AND MITIGATION

Recent public realm improvements along the Promenade have been considered. Construction methodology has been adapted to:

- Ensure reinstatement with matching materials.
- Phase works outside of peak visitor periods where possible.
- Store original paving materials for reinstatement.
- Procure matching paving ahead of construction to mitigate any delivery delay regarding breakages.

The requirement to open cut from Pit 7 (Prom west) to the Pavilion Theatre will see an increase in disruption and required excavation and reinstatement works. The same principle for safe storage and the re-usage of existing paving mentioned above will apply.

12. EVENTS AND CONSTRUCTION TIMETABLE

Worthing town centre and seafront host a significant programme of events throughout the year. The construction programme has been developed in consultation with the WBC Events Team to mitigate clashes with major events such as festivals, parades, and markets. Specific measures include:

- Relocation discussion with events during Spring and early Summer 2026.
- Clear pedestrian routes maintained during all works.
- Flexible and extended working hours where appropriate to accelerate delivery outside event windows.
- Advance communication with residents, concession holders, and businesses.

Proposed 2026 events for Steyne Gardens:

Ice Rink – Demobilises 5th March



Running event : 29th April – 5th May (meeting 24th Sept)
Food Festival : 4th June – 8th June (confirmed relocated)
Race For Life : 14th June (confirmed relocated)
Armed Forces Day : 27th – 28th June (Discuss relocating / use half site)
Worthing Pride : 29th June – 7th July (potential to relocate)
Worthing Summer Fate : 11th – 12th July
Worthing Lions Summer Festival : 25th – 26th July
More Radio : 11th – 17th Aug
Rotary Carnival : 29th – 30th Aug

The current construction programme has been sequenced as to try and avoid as many events scheduled for the start of 2026. The above events in green fall outside of the proposed construction dates

Those in orange fall just inside/close to the end of the sequencing window, however relocation discussions have seen Hemiko committing to accelerate the programme, review works sequencing and be demobilised from Steyne Gardens prior to the Armed Forces Day event planned for 27th June.

13. POLICY AND BENEFITS

The project aligns with the Worthing Local Plan (2020–2036), national planning policies, and sustainability objectives. Key benefits include:

- Enabling low-carbon heat supply to major town centre buildings.
- Supporting local climate change commitments and carbon reduction targets.
- Futureproofing infrastructure to expand connections across the town centre.
- Economic benefits through reduced energy costs and resilience of local institutions.

LOCAL POLICY

Local planning policy sets out the criteria that will be used in the determination of planning applications and has been used to inform and guide the design and development of the proposals.

WORTHING BOROUGH COUNCIL LOCAL PLAN DOCUMENT (2020-2036)

Although the Local Plan reflects local issues and choices, there are also some important limitations as the Local Plan must be aligned to, and conform with, European legislation and national planning policies and their support for sustainable development. Most notably, the preparation of the Local Plan has encompassed the requirements of the Government's NPPF. To support the NPPF, the Government has published Planning Practice Guidance (PPG) which has been taken into account. The Local Plan has also been influenced by local strategies, evidence documents and consultation responses.



Government legislation requires that all Development Plan Documents, including Local Plans, must be assessed in terms of their impact on society, the economy and the environment. The Sustainability Appraisal (that incorporates the requirements of the Strategic Environmental Assessment Directive) is an iterative process that is an integral part of plan making. It is used to consider all realistic options for growth and then identifies the significant social, environmental and economic impacts to ensure that the outcomes are as sustainable as possible.

OBJECTIVES

- **social - supporting strong, vibrant and healthy communities;**
- **economic - contributing to building a strong, responsive and competitive economy; and**
- **environmental - enhancing and contributing to our natural, built and historic environment.**

14. CONCLUSION

The proposed Densification Phase 1 route has been carefully selected and refined based on technical feasibility, stakeholder engagement, and sensitivity to the local environment. It represents a deliverable and balanced solution that minimises disruption to planned events and necessary works within the highway while enabling substantial long-term benefits. The approach incorporates lessons learned from earlier phases, robust mitigation for trees and public realm, and coordination with Worthing's vibrant town centre programme.

The planning committee meeting held on the 15 Oct 2025 highlighted that Hemiko needed to revise the current pipework installation proposal of open trench and provide a solution that would better suit the DP1 phase of network extension with a key point of minimising disruption at the forefront. This has been achieved by using an installation method of Horizontal Directional Drilling and then pulling specialised pipework through the drilled area using a natural clay bentonite lubricant which fills the void between the tunnel wall and pipework outer casing, which then hardens to provide a safe, cavity free installation.

Horizontal Directional Drilling has been cleared suitable for use on 73% of the installation.

Open trench install method will form the remaining 27% of the installation.

Used in the UK for overcoming canal, river, train track and motorway crossings, the Brugg pipe system has limitations on size diameters suitable for heat network extensions. Due to the strategic placement of branch tees in Steyne Gardens and adjustments to the Energy Centre pump flow rates, Hemiko have been able to approve this system for use on this phase of works.

The below links show an example of the same pipework proposed for DP1 being installed by the pipe manufacturer, Brugg:

General pull and reels: https://youtu.be/X_T9DwPZwmU?si=YY7PijiBfdq2_ncC

River crossing: https://youtu.be/ZCqdRptSvBc?si=2tgu5_URvmK-Z5Su



Within the highway: https://youtu.be/GebdJ5SeifU?si=F4HS1T2itXG7_lEq