



**Project: 182983 – March to Wisbech  
Strategic Options**

Date: 11th March 2024

**Cost Advice**

Title: **March to Wisbech Strategic Options**

Ref: E-0236

Pricing Basis: Order of Magnitude

Pricing Base Date: 1Q 24

**Cost Advice is not intended to be used for Investment Authority**

**Executive Summary**

This Order of Magnitude (OoM) Cost Advice provides a cost range for four options for the provision of a passenger service between March and Wisbech comparing four different modal options which are:

- Option 1 – Heavy Rail
- Option 2 – Tram Train (Hybrid heavy / light rail)
- Option 3 – Tram (Light Rail)
- Option 4 – Very Light Rail (Segregated Service)

All options start at March Station utilising platforms that are currently not in use and travels along a disused railway corridor and terminates at a location just north of Weasenham Lane in Wisbech. The Cost Advice has been produced in line with a Schedule of Items produced by NRDD.

The key assumptions and risks are detailed below:

**Key Assumptions / Risks:**

- **All Options:** There is currently no programme however it is thought that an Enter into Service date will between 2028 and 2029 at the earliest. For the purpose of calculating inflation, it has been assumed that the Enter into Service date will be 2Q 2029, the construction period will be 2 years and therefore have a start date of 2Q 2027, which generates a mid-point of construction of 2Q 2028.
- **Option 1** – A depot is not required. The heavy rail train will use existing facilities in the area.
- **Options 2, 3 & 4:** The proposed depot on the north side of March Station will have two tracks, a lightweight building to house the vehicles which will be 50m x 12m. It will have raised walkways adjacent the tracks inside and outside of the building. An inspection pit is not included. No craneage/hoists have been allowed for. There will be a separate accommodation building for staff (100m<sup>2</sup>) with a car park for 10 spaces and walkways around the depot. It will contain a shore supply to charge the vehicles.
- **All Options:** It is assumed a small number of rules of route possessions are required for works around the March Station area. An Outside Rules of Route Possessions will be required to install a turnout to access March Station.
- **All Options:** It is assumed that land purchase will be required to build the Wisbech Station and associated car park.
- **Options 2, 3 & 4:** No land purchase is required for the depot that is required for these options.
- **Options 2, 3 & 4:** Signalling will be to light rail standards and not heavy rail standards.
- **Options 2, 3 & 4:** A CET System is not required at the depot as it is assumed none of the vehicles used will have a toilet facility installed.
- **Option 4** – The route will be fully segregated from the heavy rail infrastructure.



**Project: 182983 – March to Wisbech  
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The cost range for all of the options for the three stations are as follows:

Option Nr	Lower Limit	Upper Limit	Key Scope
Option 1 – Heavy Rail	£189,280,000	£229,980,000	New station at Wisbech, Re-opening abandoned platforms at March Station, installation of 14.4 km of single track and a passing loop, S&C, signalling, EP&P, replace and repair structures.
Option 2 – Tram Train (Hybrid Heavy / Light Rail)	£146,520,000	£178,820,000	New station at Wisbech, Re-opening abandoned platforms at March Station, a depot at March Station; installation of 16.0 km of single track and a passing loop, S&C, signalling, EP&P to light rail standards, replace and repair structures.
Option 3 – Tram (Light Rail)	£149,290,000	£182,290,000	New station at Wisbech, Re-opening abandoned platforms at March Station, a depot at March Station installation of 16.8 km of single track and a passing loop, S&C, signalling, EP&P to light rail standards, replace and repair structures.
Option 4 – Very Light Rail	£141,790,000	£173,090,000	New station at Wisbech, Re-opening an abandoned platforms at March Station, a depot at March Station; installation of 16.8 km of single track and a passing loop, S&C, signalling, EP&P to light rail standards, replace and repair structures.

The above costs range include Direct Construction Works costs, Main Contractors Preliminaries, Main Contractors Overheads and Profits, Design / Surveys, NR Project Management, Possession Management, Schedule 4, Risk and Inflation.

### Summary of Works

The scope of the works is as highlighted below:

- Option 1** – A new station will be constructed at Wisbech comprising a single 40m long platform with a canopy, lighting, CCTV, CIS and PA speakers and a 50 space car park. Two disused platforms will be re-opened at March Station these will be refurbished and station telecoms will be installed. The station footbridge will be re-opened, and the stairs replaced with escalators. 14.4 km of single ballasted track and a passing loop will be installed along with other S&C and track drainage. New signalling and EP&P equipment will be required. 3Nr Underbridges will be replaced and 3Nr Underbridges will be repaired. The full route will be fenced.
- Option 2** – A new station will be constructed at Wisbech comprising a single 40m long platform with a canopy, lighting, CCTV, CIS and PA speakers and a 50 space car park. Two disused platforms will be re-opened at March Station these will be refurbished and station telecoms will be installed. The station footbridge will be re-opened, and the stairs replaced with escalators. A depot for light vehicle maintenance incorporating two tracks, access walkways, vehicle charging, vehicle washing, staff accommodation. 16.0 km of single ballasted track and a passing loop will be installed along with other S&C and track drainage. New signalling and EP&P equipment will be required. 3Nr Underbridges will be replaced and 3Nr Underbridges will be repaired. The full route will be fenced.



## Project: 182983 – March to Wisbech Strategic Options

Date: 11th March 2024

- **Option 3** – A new station will be constructed at Wisbech comprising a single 40m long platform with a canopy, lighting, CCTV, CIS and PA speakers and a 50 space car park. Two disused platforms will be re-opened at March Station these will be refurbished and station telecoms will be installed. The station footbridge will be re-opened, and the stairs replaced with escalators. A depot for light vehicle maintenance incorporating two tracks, access walkways, vehicle charging, vehicle washing, staff accommodation. 16.8 km of single ballasted track and a passing loop will be installed along with other S&C and track drainage. New signalling and EP&P equipment will be required. 3Nr Underbridges will be replaced and 3Nr Underbridges will be repaired. The full route will be fenced.
- **Option 4** - A new station will be constructed at Wisbech comprising a single 40m long platform with a canopy, lighting, CCTV, CIS and PA speakers and a 50 space car park. Two disused platforms will be re-opened at March Station these will be refurbished and station telecoms will be installed. The station footbridge will be re-opened, and the stairs replaced with escalators. A depot for light vehicle maintenance incorporating two tracks, access walkways, vehicle charging, vehicle washing, staff accommodation. 16.8 km of single ballasted track and a passing loop will be installed along with other S&C and track drainage. New signalling and EP&P equipment will be required. 3Nr Underbridges will be replaced and 3Nr Underbridges will be repaired. The full route will be fenced.

### Key Assumptions / Risks:

- **All Options:** There is currently no programme however it is thought that an Enter into Service date will between 2028 and 2029 at the earliest. For the purpose of calculating inflation it has been assumed that the Enter into Service date will be 2Q 2029, the construction period will be 2 years and therefore have a start date of 2Q 2027, which generates a mid-point of construction of 2Q 2028.
- **Option 1** – A depot is not required. The heavy rail vehicles will use existing facilities in the area.
- **Options 2, 3 & 4:** The proposed depot at March will have two tracks, a lightweight building to house the vehicles which will be 50m x 12m. It will have raised walkways adjacent the tracks inside and outside of the building. An inspection pit is not included. No craneage/hoists have been allowed for. There will be a separate accommodation building for staff (100m<sup>2</sup>) with a car park for 10 spaces and walkways around the depot. It will contain a shore supply to charge the vehicles.
- **All Options:** It is assumed a small number of rules of route possessions are required for works around the March Station area. An Outside Rules of Route Possessions will be required to install a turnout to access March Station.
- **All Options:** It is assumed that land purchase will be required to build the Wisbech Station and Car park.
- **Options 2, 3 & 4:** No land purchase is required for the Depot required for these options.
- **Options 2, 3 & 4:** Signalling will be to light rail standards and not heavy rail standards.
- **Options 2, 3 & 4:** A CET System is not required at the depot as it is assumed none of the vehicles used will have a toilet facility installed.
- **Option 4** – The route will be fully segregated from the existing heavy rail infrastructure.
- **All Options:** Wisbech Station will have a 50-space car park.
- **All Options:** All track will be ballasted track. No track slab will be required as there will be no on street running.
- **All Options:** Class 1 palisade fence will be provided in populated areas only. Class 3 Timber Post and Rail fence will be used in unpopulated areas.

### Key Exclusions

- No allowance has been made for the diversion of and/or works to statutory services or drainage.
- OPEX Costs.



**Project: 182983 – March to Wisbech  
Strategic Options**

Date: 11th March 2024

- Disposal of hazardous material.
- Correcting Non-Conformances in existing assets.

**Indirect Costs**

- Main Contractor Preliminaries have been calculated at a rate of **35%** applied to Direct Construction Works cost.
- Main Contractor Overheads and Profit have been calculated at a rate of **12%** to **16%** of Direct Construction Works cost.
- Design costs have been calculated at **18%** to **22%** of the Total Construction Works costs. This value includes the current Cost of Work Done value.
- NR Project Management costs have been calculated as **8%** of the Total Construction Works plus Design and Other Projects costs. This value includes the current Cost of Work Done value.

**Supporting Information**

- Document / Drawings

Item	Document Title	File Type
A	182983-NRDD-REP-ESE-000001 – 1.0 - Draft	PDF
B	Schedule of Items – March to Wisbech – v0-1	Excel
C	Sponsors Instruction – Wisbech Rail_MC	Word
D	March-Wisbech PEST 210223 (1)	Excel