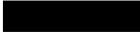




From: [Hyndburn Borough Council](#)
To: [Planningpolicy](#)
Subject: New submission from Make a representation on the Hyndburn Pre-Submission Local Plan
Date: 19 March 2024 09:25:08
Attachments: [Make a representation on the Hyndburn Pre-Submission Local Plan - 96281.pdf](#)
[Final-Amazing-Accrington-letter-of-objection-Local-Plan-17-01-2023.pdf](#)
[Scoping-Study-for-NE-Lancashire-Freight-Rail-Terminal.pdf](#)
[IMG_1291.JPG](#)

REF 1093_2

PART A Your Details
Your Name
Mrs. Amber Corns
Your Address:
Dawson Court Billington Road Burnley BB11 5BW Map It
Your job title
PR Director
Your organization
Amazing Accrington
Your preferred telephone number:



PART 1B Your Representation
To which part of the Local Plan does this representation relate?
Site (number / location)
Site (number / location)
S2
Your Comments
Policy SP2 6) states that land has been safeguarded for the development of strategic rail infrastructure, a potential Freight Rail Terminal which would bring huge economic benefit to the region. The siting of planned housing directly adjacent to this boundary would make this site unfeasible for future use, and prevent future economic growth.
Do you consider that this part of the Plan meets the legal and procedural requirements?
No
Please give details of why you consider that the Local Plan is / is not legally compliant or is sound / unsound.
The current plan has not taken into account representations made by this organisation previously, following a commissioned report carried out by MDS Tranmodal confirming its viability and indeed necessity for the broader region.
Please set out what change(s) you consider necessary to make the Local Plan legally compliant or

sound:

1. The report commissioned by Amazing Accrington was produced by national experts who are providing strategic advice on railfreight on an ongoing basis to key rail sector stakeholders. This report is a valuable planning document and remains valid. This report sets out not only what would be necessary to enable a railfreight terminal to be successful in general and at this particular location (e.g. synergy with distribution/warehousing) but also provides the key dynamics of railfreight within Great Britain. In other words, if a local plan merely allocates a limited area for rail sidings and does not take account of the wider context, it will not secure a successful railfreight terminal. Without the plan evidencing this grounding, it is highly likely the plan in allocating a limited area for railfreight will not be taken seriously by the key stakeholders in the rail industry. It is therefore disappointing the the plan work so far seems not to have taken account of this information.

2. A railfreight terminal for East Lancashire is seen as essential infrastructure to drive economic regeneration and wellbeing for this populous sub-region and for the Northwest generally. As such, this is a major theme for the Hyndburn Local Plan (to facilitate this facility on behalf of the whole of East Lancashire).

3. Huncoat is by far the best location for a railfreight terminal within East Lancashire. There are no other potential sites in East Lancashire which meet criteria in terms of suitable topography, land area, access to rail network and principal road network. This is the only site within East Lancashire where this conjunction of key factors is met optimally.

4. The vision for Huncoat Garden Village is appreciated and it is accepted that the Borough needs to meet its housing needs. However, whilst sustainability at the local level is important, it is more critical that planning provides for development which is holistic and sustainable at the highest level i.e. that employment needs are aligned with housing needs and, moreover, that strategic, regional infrastructure which enables substantial decarbonisation to be made is properly planned for.

5. Locally, it is important for a plan to ensure that adjacent and nearby land uses are compatible. The housing area proposed to the north side of the railway, not only sits on land which is needed for the railfreight terminal, housing located here would be vulnerable to noise and lighting impacts were a rail facility to be provided on the area allocated within the draft plan. There are very clear planning benefits in using the existing rail line with its established impacts as a strong zoning feature between housing and commercial/employment uses at Huncoat i.e. with housing only to the south of the rail line.

6. The current housing allocation on the land north of the railway is going to be extremely expensive to bring forward on account of it previous contaminative uses and the costs of land remediation. This would seem to make the delivery of housing on this land dependent upon either or both: low land values and significant external financial inputs. Regenerating this site for railfreight use will have lower financial and environmental costs. As set out, a railfreight terminal has significant operational and planning constraints whereas housing is a much more flexible land use. It is felt that housing numbers can be met by bringing forward 'reserve sites' in the Plan and/or other sites which are at least equally sustainable as the land at Huncoat north of the railway (in terms of access to local services and public transport).

7. Lancashire County Council as the strategic transport body for the area received a copy of the report that Amazing Accrington commissioned and it is understand they concur with the MDS Report and with these views and have provided similar comments to the plan proposals in respect of this key theme of railfreight.

You will need to say why this change will make the Plan legally compliant or sound. It will be helpful if you are able to put forward your suggested revised wording for any policy or text and cover all the evidence and supporting information necessary to support/justify the representation.

The housing allocation for Huncoat Garden Village will need to be re looked at and resited to enable the Freight Rail Terminal to go ahead, bringing valuable economic growth to the region. Without amends, the freight rail terminal is unable to go ahead as the land allocated is simply not big enough/ will be inaccessible.

Should you wish, you can upload further relevant information or documents here

- [Final-Amazing-Accrington-letter-of-objection-Local-Plan-17-01-2023.pdf](#)
- [Scoping-Study-for-NE-Lancashire-Freight-Rail-Terminal.pdf](#)

Do you wish to make a representation about another paragraph, policy or site in the plan?

No

Do you consider it necessary to participate in the public examination?

No, I do not wish to participate at the oral examination

Section 8: Declaration

Would you like to upload your signature file?

Yes

[REDACTED]

- [REDACTED]

Date

19/03/2024

Make a representation on the Hyndburn Pre-Submission Local Plan

PART A | Your Details

Your Name

Mrs. Amber Corns

Your Address:

Dawson Court
Billington Road
Burnley BB11 5BW

Your job title

PR Director

Your organization

Amazing Accrington

Your preferred telephone number:

[REDACTED]

[REDACTED]

PART 1B | Your Representation

To which part of the Local Plan does this representation relate?

Site (number / location)

Site (number / location)

S2

Your Comments

Policy SP2 6) states that land has been safeguarded for the development of strategic rail infrastructure, a potential Freight Rail Terminal which would bring huge economic benefit to the region.

The siting of planned housing directly adjacent to this boundary would make this site unfeasible for future use, and prevent future economic growth.

Do you consider that this part of the Plan meets the legal and procedural requirements?

No

Please give details of why you consider that the Local Plan is / is not legally compliant or is sound / unsound.

The current plan has not taken into account representations made by this organisation previously, following a commissioned report carried out by MDS Tranmodal confirming its viability and indeed necessity for the broader region.

Please set out what change(s) you consider necessary to make the Local Plan legally compliant or sound:

1. The report commissioned by Amazing Accrington was produced by national experts who are providing strategic advice on railfreight on an ongoing basis to key rail sector stakeholders. This report is a valuable planning document and remains valid. This report sets out not only what would be necessary to enable a railfreight terminal

to be successful in general and at this particular location (e.g. synergy with distribution/warehousing) but also provides the key dynamics of railfreight within Great Britain. In other words, if a local plan merely allocates a limited area for rail sidings and does not take account of the wider context, it will not secure a successful railfreight terminal. Without the plan evidencing this grounding, it is highly likely the plan in allocating a limited area for railfreight will not be taken seriously by the key stakeholders in the rail industry. It is therefore disappointing the the plan work so far seems not to have taken account of this information.

2. A railfreight terminal for East Lancashire is seen as essential infrastructure to drive economic regeneration and wellbeing for this populous sub-region and for the Northwest generally. As such, this is a major theme for the Hyndburn Local Plan (to facilitate this facility on behalf of the whole of East Lancashire).

3. Huncoat is by far the best location for a railfreight terminal within East Lancashire. There are no other potential sites in East Lancashire which meet criteria in terms of suitable topography, land area, access to rail network and principal road network. This is the only site within East Lancashire where this conjunction of key factors is met optimally.

4. The vision for Huncoat Garden Village is appreciated and it is accepted that the Borough needs to meet its housing needs. However, whilst sustainability at the local level is important, it is more critical that planning provides for development which is holistic and sustainable at the highest level i.e. that employment needs are aligned with housing needs and, moreover, that strategic, regional infrastructure which enables substantial decarbonisation to be made is properly planned for.

5. Locally, it is important for a plan to ensure that adjacent and nearby land uses are compatible. The housing area proposed to the north side of the railway, not only sits on land which is needed for the railfreight terminal, housing located here would be vulnerable to noise and lighting impacts were a rail facility to be provided on the area allocated within the draft plan. There are very clear planning benefits in using the existing rail line with its established impacts as a strong zoning feature between housing and commercial/employment uses at Huncoat i.e. with housing only to the south of the rail line.

6. The current housing allocation on the land north of the railway is going to be extremely expensive to bring forward on account of its previous contaminative uses and the costs of land remediation. This would seem to make the delivery of housing on this land dependent upon either or both: low land values and significant external financial inputs. Regenerating this site for railfreight use will have lower financial and environmental costs. As set out, a railfreight terminal has significant operational and planning constraints whereas housing is a much more flexible land use. It is felt that housing numbers can be met by bringing forward 'reserve sites' in the Plan and/or other sites which are at least equally sustainable as the land at Huncoat north of the railway (in terms of access to local services and public transport).

7. Lancashire County Council as the strategic transport body for the area received a copy of the report that Amazing Accrington commissioned and it is understood they concur with the MDS Report and with these views and have provided similar comments to the plan proposals in respect of this key theme of railfreight.

You will need to say why this change will make the Plan legally compliant or sound. It will be helpful if you are able to put forward your suggested revised wording for any policy or text and cover all the evidence and supporting information necessary to support/justify the representation.

The housing allocation for Huncoat Garden Village will need to be re looked at and resited to enable the Freight Rail Terminal to go ahead, bringing valuable economic growth to the region. Without amends, the freight rail terminal is unable to go ahead as the land allocated is simply not big enough/ will be inaccessible.

Should you wish, you can upload further relevant information or documents here

- [Final-Amazing-Accrington-letter-of-objection-Local-Plan-17-01-2023.pdf](#)
- [Scoping-Study-for-NE-Lancashire-Freight-Rail-Terminal.pdf](#)

Do you wish to make a representation about another paragraph, policy or site in the plan?

No

Do you consider it necessary to participate in the public examination?

No, I do not wish to participate at the oral examination

Section 8: Declaration

Would you like to upload your signature file?

Yes

Signature Upload

- [REDACTED]

Date

19/03/2024

17 01 2023

Simon Prideaux

Chief Planning Officer

Hyndburn Borough Council

RE: HYNDBURN LOCAL PLAN / FREIGHT RAIL TERMINAL

As a business leader in Lancashire and the Chair of Amazing Accrington which brings together business leaders across the borough, I would like to raise some crucial points on an element of the Local Plan submission on behalf of the group.

Policy SP2 6) states that land has been safeguarded for the development of strategic rail infrastructure, a potential Freight Rail Terminal which would bring huge economic benefit to the region.

Because of the importance of good freight facilities for Accrington and the whole of East Lancashire, our business leader group has commissioned and funded a report into the feasibility from one of the UK's leading consultancy on rail freight matters. This report highlights a number of critical issues for effective/viable rail freight terminals and has looked into the Huncoat site and what would be needed to make this work. Amongst the key points from this report are:

- 1.The Huncoat location is optimal within East Lancashire and there are no other viable sites. The Huncoat site has suitable topography and is at the centre of the East Lancashire sub-region.
- 2.It has excellent access to the M65 and A56 so that feeder hauls on the highway network would be short and cost-effective and would derive access to the rail network where there previously were connections.
- 3.Critically, there is a large area of flat land capable of being directly linked to the rail terminal itself and which could be used to extend substantially an estate that already accommodates successful warehousing and distribution businesses. This is seen as essential both for operational viability and to provide the opportunity for cross-funding where some value from warehousing development is transferred to the terminal site itself to enable it to be developed. In this way the employment effects of the terminal are very greatly increased. Page 38 at 9.3 states the need for additional area for the terminal itself and for co-located distribution warehousing
- 4.Modern freight trains due to their length will require a terminal to have adequate length of sidings and ideally access from both directions on the network. Some of the land to the west of the boundary is needed to enable this. The current plan would

require a steep left bank which isn't possible by solely using the safeguarded land (for infrastructure) parcel P east of Altham Lane.

The Freight Rail study is attached in its entirety. 2m sq ft of warehousing could be developed and 2835 direct jobs created – this project is key, not just to the economic support and growth of Hyndburn businesses, but to sustaining jobs across the whole of East Lancashire. As the pressure increases on businesses to decarbonise the connectivity to rail freight could become a major factor for businesses – whether new ones choose to locate here and established ones choose to stay. Rail connectivity to the deep-sea ports and markets such as Scotland, the Midlands and the South East is going to become a more decisive issue in determining the location of employment (and thereby) wellbeing. There is also a 76% carbon emission saving by moving freight from road to rail, and a potential 50% cost saving.

Hyndburn's low cost development land to the north also needs to be approved in the Local Plan – we know of a £75m Hyndburn project keen to stay local, and HBC need to approve this.

In October 2021, HBC's Cabinet approved the Huncoat Garden Village Masterplan Framework and Infrastructure Delivery Strategy. This does not take into account the needs of the Freight Rail Terminal, and phase 2 L1 and L2 houses are directly built over the land required, item 200.5 which is a roundabout and potentially part of land parcel B (housing).

Essentially the Huncoat development should not simply be seen as a housing project, but rather as a mixed regeneration project with proper status being given to the strategic employment elements. This is becoming planning practice elsewhere in Britain, where rail linked distribution developments are being planned in tandem with residential development.

The largest current such example is probably that immediately south of Rugby. In layout terms this basically means that the railway forms a boundary with housing to the south and rail freight-led employment to the north. Viewed and planned in this holistic way, the costs of reclaiming polluted, brownfield land for housing can be significantly reduced (as the land would be re-used for employment purposes) and the respective landowners should get their fair shares of the uplift in land values from development.

To be clear –

- **A rail freight terminal is needed to sustain existing employment in East Lancashire and to create the conditions for creating new jobs.**
- **Huncoat is the optimal location within the whole of East Lancashire for rail freight and the linked employment uses which are essential to secure viability. There are no other suitable sites in Hyndburn or other East Lancashire boroughs.**
- **If the Masterplan is not altered to relocate these items, the Freight Rail Terminal cannot be built and the safeguarded land is permanently unusable for its ringfenced use.**

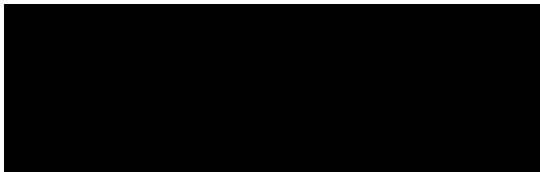
- **The location of housing is very much more flexible than the location of employment land and especially employment land which is future-proofed by having good connectivity to rail freight facilities. Also, it is much more sustainable to bring forward contaminated employment land for new employment purposes than for housing.**

We intend to make an appropriate representation to the Hyndburn Local Plan consultation by the 18th January 2023 deadline and will be attaching the scoping study produced by MDS Transmodal.

On these grounds, **we formally object to the Local Plan**, and would welcome your thoughts on how we can work collectively to plan for and deliver both the aspirations of the Huncoat Garden Village Masterplan and a Freight Rail Terminal.

We feel it would be very useful if MDS (who carried out the study) were invited to attend a working meeting on this issue with the planners.

Yours faithfully,



MURRAY DAWSON, CHAIR, AMAZING ACCRINGTON BUSINESS LEADERS GROUP

FUNDING CONTRIBUTORS TO REPORT:

Taps North West, Coach House, First Tunnels, Cardboard Box Co, Emerson & Renwick, Globe Enterprises, Onward Homes, Langtec, Hyndburn BC, Fagan & Whalley, SDA, Northwest Logistics, Sundown Solutions, Witch Group, HML Recycling



Scoping Study for a rail freight terminal for NE Lancashire

A final report by
MDS Transmodal

July 2022



Ref: 222004R FINAL

CONTENTS

1. INTRODUCTION.....	1
2. LOCATION	2
3. POLICY ISSUES.....	7
4. RAIL NETWORK AND LOADING GAUGE	8
5. COMMERCIAL STRUCTURE	19
6. DEMAND	26
7. LAYOUT, CONNECTIONS AND OTHER CONSIDERATIONS	33
8. PROCESS.....	36
9. SUMMARY AND CONCLUSIONS.....	38

© MDS TRANSMODAL LIMITED 2022

The contents of this document must not be copied or reproduced in whole or in part without the written consent of MDS Transmodal

1. INTRODUCTION

This report is intended to act as a scoping study of the case for a rail freight terminal at Huncoat in North-East Lancashire. It will cover issues of location, policy, rail network capability and loading gauge, site configuration, commercial environment and the process that would need to be undertaken should a decision be taken to taken the project further. The consultants have not discussed the project with other authorities at this stage and have not conducted any local market research. This is because it was considered important to be able to present a clear picture of the context of the project in terms of factors such as:

- the proposed site,
- the national rail network,
- traffic flows,
- stakeholders,
- opportunities,
- market dynamics,
- competition,
- funding.

Clearly a facility of this type also has key context in the regenerative role it can have on a sub-region in attracting economic activity and jobs.

In this way, the client could understand the broad context first and particularly parameters that will make for successful implementation. This approach is necessary given the likelihood that the project will be challenged within the railway industry as a result of such projects normally being focussed on routes which already enjoy a more generous loading gauge and a current policy to concentrate rail freight onto the Transpennine route via Huddersfield.

We have employed data collected from a number of recent studies as well as using results from our GB Freight Model (a model that incorporates transport cost models, networks and cargo flows), which is used by both Network Rail and National Highways to describe and forecast freight volumes and by the DfT in assessing the contribution that new infrastructure can make in the freight sector.

Once this report has been considered by the client it can be shared with other actors in the rail sector.

Unless otherwise shown, data and maps have been developed from MDS Transmodal's in-house resources and particularly from its GB Freight Model.

2. LOCATION

The proposed site is centrally placed within the North-East Lancashire sub-region. North-East Lancashire has been an important national manufacturing centre since the early years of the industrial revolution and the introduction of the textile industry. It has been the location of other significant industries such as engineering and electronics. It is an area which has been badly impacted upon by Britain's de-industrialisation and is one which would benefit from stimuli to its economic and social wellbeing. A rail freight terminal would undoubtedly be such a stimulus as it would not only make the movement of freight easier for existing businesses, but could help to create conditions where East Lancashire can more easily retain existing business and be seen as an attractive area for inward investment (whether regionally or nationally).

For an inland rail freight terminal to be successful in what is largely now a service economy in Britain, it is important it can secure inbound, international flows from deep water ports and/or UK-based distribution traffic flows. This is because the most highly concentrated longer distance flows are imports from major ports. It is commercially beneficial if there are local outbound freight flows such as building materials and consumer goods to provide backloads for such trains.

For the critical inbound flows, it is necessary to establish that there is a sufficiently large market within a convenient, short drive time for onward distribution. This link to distribution is important in other respects as co-located warehousing can provide funding for the terminal facilities and can also be a significant employment generator which gives real regeneration benefits.

Terminals may need to operate 24 hours per day and have environmental impacts in terms of noise, lighting and traffic. This report does not provide an environmental impact assessment, but has given some initial consideration to these issues along with existing and planned neighbouring land uses and ways in which the impacts could be mitigated.

Naturally, since roads and heavy goods vehicles provide the means of getting freight to and from a rail terminal the location in respect of the principal highway network is important for efficient operation and to avoid adverse traffic impacts.

Huncoat's road network location

The site lies adjacent to the junction of the M65 and the A56; two trunk highway routes which give good connectivity into sub-regional and regional freight generators. The M65 joins Nelson, Burnley and Blackburn with the M6 near Preston while the A56 dual carriageway (and its continuation as the M66) joins Huncoat to Manchester and the M60/M62. We are aware that there is a case for the extension of the M65 towards West Yorkshire, which would significantly improve the site's potential as a distribution centre.

It is located immediately next to the railway that joins the West Coast Mainline at Leyland with the east coast ports via the Healey Mills railway yard in West Yorkshire. The East Lancashire line has the benefit in relation to freight terminal location in that there are both north and south facing connections to the West Coast Mainline at Farington Junction near Leyland. One kilometre to the west of the proposed terminal site lies a major brick works which is a potential traffic generator, while one kilometre to its north is the existing Altham Industrial Park (approx. 70 hectares), a major employment and distribution site. There would be scope to double the scale of this business park using the land in between it and the terminal and thereby accommodate the type of distribution centres that could attract inbound goods carried by rail. This opportunity is already incorporated into local planning. The proposed railway terminal itself would ideally be capable of dealing with trains up to 775 metres in length and at least the longest intermodal trains currently operating in the UK (630 metres). The terminal therefore would need to be at least around 1,000 metres long and cover an area of some 8-10 hectares. It could be linked to the business park via an internal road using an existing motorway bridge if Altham Lane was closed to through traffic.

The site lies 40 kms. north of the centre of Manchester. Driving times according to Michelin for a private car are 32 minutes, 39 minutes and 70 minutes respectively to the centres of Preston, Manchester and Leeds. There are a number of modern, established, large-scale distribution centres within 45 minutes of the site e.g. at Redscar and Walton Summit (respectively east and south of Preston), Leyland, Shadsworth (Blackburn), Burnley, Oldham and Heywood.

We have compared its location on cost grounds to the most popular and central of distribution sites in the North West at Haydock. This is based on the assumption that HGV delivery vehicles will operate at approximately 20% slower speeds than those for a private car and spend one hour at each of their collection and delivery points. The distribution of goods to be delivered is taken as proportional to populations and an incremental cost formula of £0.52/km plus £0.52/minute is assumed (consistent with other sources and MDST's GB Freight Model and therefore with the forecasting methodologies used for Network Rail and updated March 2022).

Table 1 Huncoat compared with minimum cost existing shed concentration in the region (Haydock) from a road transport delivery cost perspective

Mean distance from Haydock:	44.4km	
Mean distance from Huncoat:	<u>57.1km</u>	
Extra distance:	12.8km @ £0.52 =	£6.66
Mean time from Haydock:	41.4mins	
Mean time from Huncoat:	<u>53.2mins</u>	
Extra time:	11.8mins @ £0.52 =	<u>£6.14</u>
Total extra cost each direction:		£12.80
Extra cost per round trip:		£25.60

Given the standard semi-trailer can accommodate 26 pallets single stacked this implies that a distributor located at Huncoat would face an extra cost of £1.0/pallet.

A 10,000 square metre shed can be expected to have a capacity of 10,000 pallets at any one time and have an annual throughput of 120,000 pallets, which will therefore raise distribution costs by £120,000. Fuel costs account for around 40-45% of this extra distribution cost.

Current rental levels for large warehouses are £72.6/m² in North Lancashire and £83.3/m² along the M62 corridor (source Colliers, first quarter 2022) so that an occupier at Huncoat would save £107,000 in rent by locating at Huncoat instead of at Haydock. That is, the extra distribution costs ex Huncoat are more or less exactly matching any saving in rent. This implies that at current market rents a distribution centre at Huncoat would be cost effective to its occupier; it can address the regional distribution market

However, lower rents means that land values at Haydock are likely to be around £0.5m/acre at Huncoat as compared with £1.5m/acre at Haydock (source both Colliers) because intra-regional lengths of haul will be longer. While on the one hand, the lower land value makes East Lancashire potentially viable for rail-served distribution, on the other hand this will significantly reduce the land value available to fund a rail terminal from development gain as compared with a location in the M62 area. The lower are land values, the more difficult it will be to fund a terminal from the uplift in that value, although the fact of rail access can be expected to raise that value.

It will be seen that commercially Huncoat's location is comparable with other popular sites in the area. This is to be expected, given the extensive size already of the nearby Altham Industrial Park and private sector aspirations to build more distribution centres in the vicinity.

Huncoat's rail network location

The proposed location has been identified by earlier planning work. This report has undertaken a rapid, high-level review of the location compared to other possible locations on the rail line within East Lancashire in relation to the existing rail infrastructure and criteria such as:

- physical rail connectivity,
- gradients,
- curvature,
- other key rail infrastructure such as stations,
- site area and levels.

In these terms, the site is a practical one (subject to comments made later in this report about area) and there are no sites in North East Lancashire which would appear to offer advantages over this one

without incurring significant additional costs. It was previously the location of coal sidings to serve a power station on the southern side of the railway, served by conveyor.

Huncoat lies on the railway line between Leyland on the West Coast Main Line and the Calder Valley line at Todmorden. East of Todmorden, freight trains can follow the Calder Valley line to Ravensthorpe and then pass via Healey Mills Yard to Wakefield and Doncaster (East Coast Main Line), which now both host major intermodal terminals within areas of dense warehousing. In terms of distances to London, the route from Huncoat via the ECML and Doncaster is marginally shorter (349km) than via the WCML and Crewe (359km). From the UK's largest container port at Felixstowe, despite being further north than Trafford Park, Huncoat is actually around 11 kms closer by rail (via the ECML) than is the North West's major intermodal terminals at Trafford Park (via the WCML), with the further benefit of freight trains from Huncoat would not have to pass through the centre of Manchester (where there is significant capacity constraint in the rail network), which has the effect of offering a lower travel time (see below).

Efforts continue to be made to reinstate the rail link between Colne and Skipton. Clearly, such a reinstatement would not be disadvantageous to a new railfreight terminal in East Lancashire. However, this link is not considered necessary to make a terminal at Huncoat work effectively and there is no dependency on this reinstatement. The reasons for this include the routing of freight between East Lancashire and West Yorkshire via this route would mean the freight traffic passing through the centre of Leeds; a location where there are already network capacity issues. The route via Todmorden has the advantage of Trans-Pennine freight avoiding both Leeds and Manchester.

For rail services to the Humber ports, the distance to Huncoat would be very similar to that to Trafford Park, also with the benefit of trains not having to pass through the centre of Manchester. The distance between Hull and Huncoat by intermodal rail (avoiding Leeds) is equidistant to that to Trafford Park via the Diggle route and shorter than from the proposed rail linked distribution sites to the west of Manchester.

We have examined recent working timetables to determine the fastest times that freight trains operate at between different junctions to compute (by addition) potential end to end times. We conclude the following are achievable under current conditions (provisional calculations, fastest apparent trains between the junctions that, summed, make up routes, based on Working Time Table):

Teesport to Huncoat:	3 hours 21 minutes
Teesport to Trafford Park:	4 hours 7 minutes
Immingham to Huncoat:	2 hours 36 minutes
Immingham to Trafford Park:	3 hours 22 minutes
Felixstowe to Huncoat:	6 hours 42 minutes (via Doncaster)

Felixstowe to Trafford Park: 7 hours 32 minutes (via Crewe)

The quicker the journey, the lower will time related costs be and therefore the lower the cost per container moved. Very approximately, the time related intermodal rail costs are around £200-250 per hour or £7-8 per container transported.

The different route options across the Pennines are described in figure 3 below.

3. POLICY ISSUES

There is considerable policy support for rail freight from Government and sub-regional bodies such as Transport for the North. This is reflected in the recent Integrated Rail Plan for the Midlands and the North (November 2021) and the more detailed Network Rail Freight Strategy produced in December 2021. Both reference forecasts conducted by MDST for Network Rail that were published on the NR website in August 2020. That support is based upon rail freight offering both user and non-user benefits; user benefits because (if capacity is available) rail offers savings as compared with road for some flows and non-user benefits because a reduction in HGV movements reduces congestion for other users, road damage and air quality is (net) improved because rail traffic uses less energy per tonne kilometre than does road haulage.

The Government target of achieving 'net-zero' carbon emission by 2050 implies a significant switch of long-distance freight from road to rail and this means more terminal and network capacity is needed within the more populous regions of the UK.

From a planning perspective, a new definition was introduced some 15 years ago called 'Strategic Rail Freight Interchanges' which entitle developers to make a direct application to the Planning Inspectorate (PINS) for a development order for a rail linked distribution site providing it exceeds 60 hectares and has provision for at least 4 trains arriving per day. This was to side-step a perceived issue that some developments would be resisted because of the amenity impact faced locally as compared with the national benefit of promoting rail freight. The key issue is that if warehouses (distribution centres) are built adjacent to intermodal rail terminals then rail freight because much more competitive because the cost of the local haul from rail terminals to shed is drastically reduced or eliminated altogether. Most of the major new developments, such as Four Ashes, DIRFT (extension), East Midlands Gateway (Kegworth), Northampton Gateway, iPort Doncaster and so forth have taken this planning path, also exploiting the major surge in warehousing demand following both BREXIT and the growth in on-line distribution.

4. RAIL NETWORK AND LOADING GAUGE

We have described above how Huncoat fits into the rail network. It is important, however, to consider the strategy that has been adopted to date in terms of rail freight development.

Passenger rail traffic more than doubled in the years between rail privatization and the pandemic. At the beginning of this period, when private sector rail freight operators were launched, the emergence of the Channel Tunnel and the case for rail linked warehousing were being actively promoted (in the 1990s), rail network congestion did not appear to constitute a significant obstacle but loading gauge (see below) did rapidly emerge as a problem. This is because, globally, shipping lines began to adopt the use of 9'6" high containers instead of 8'6" high containers. When the UK first developed 'liner trains' (they were proposed in some detail in the 1963 Beeching Report) the standard container height was only 8'0" high, and this could be accommodated on approximately one metre high wagons within a loading gauge (i.e. the vertical profile that describes the space available for railway vehicles to pass) that was widely, if not universally, available. As loading gauge standardization developed in the 1990s, this became known as 'W7'. See section 5 for a more detailed discussion on wagons.

The migration of the shipping lines to 8'6" high containers was accommodated by the definition of a slightly enhanced gauge called W8, which required some bridge rebuilding or track lowering. This is only required where bridges (and tunnels) are arched; if a bridge is 'flat' then there is no problem because the required height for all rail vehicles at the centre line is 3.965m, which exceeds the combined height of even a 9'6" high container (2.90m) plus 1.00m wagon, a sum of only 3.90m. The Diggle route across the Pennines (between Huddersfield and Manchester) was adjusted for W8 loading gauge, although a failure to maintain track heights now means that this gauge is now only available at night providing freight trains pass very slowly through some structures (in the daytime such behaviour would be deemed unacceptable because it would delay passenger trains).

A fortunate coincidence appeared to have been identified in the 1990's whereby it was assumed that to clear bridge heights for electrification would in any event lead to W10 loading gauge becoming available 'automatically' and this then encouraged, for several years, a policy to be followed whereby growth in intermodal traffic could go hand in hand with electrification upgrades on main lines. A comprehensive analysis of loading gauges across Northern Britain is described in the appendices.

Unfortunately, this conflation of electrification with loading gauge upgrade has led to intermodal traffic being concentrated on heavily used long distance passenger routes, which themselves now accommodate more passenger trains. In some respect this suits freight train operators because higher speeds can be maintained, but only if the growing number of passenger trains do not force trains to be looped while they go past. In practice we have separately calculated that the mean end to end timings for intermodal trains nationally is only 48 kph, as compared with their maximum speed of 120 kph. Our analysis of network capacity (for the DfT, TfN and Midlands Connect) has established that long-term forecast freight train volumes cannot be accommodated without more capacity being made

available. Figure 1 below describes projected passenger train volumes after Trans-Pennine upgrade has been completed.

The policy of supporting the general case for electrification by also assuming that freight benefits can be included may therefore not be sustainable in the long term. The strategy being adopted for the Diggle route could be considered to fall into this bracket; current upgrade plans do not assume that an hourly freight path will be available on this route until 2032, and then only when electrification is fully available because otherwise freight trains will not be able to maintain the speeds required to avoid reducing passenger service capacity. Furthermore, a recent decision by Network Rail clarifies that more daytime freight capacity will not be available through Piccadilly station in Manchester, which lies between the Diggle route and the Trafford Park intermodal rail terminals. The route via Huncoat would circumvent this challenge.

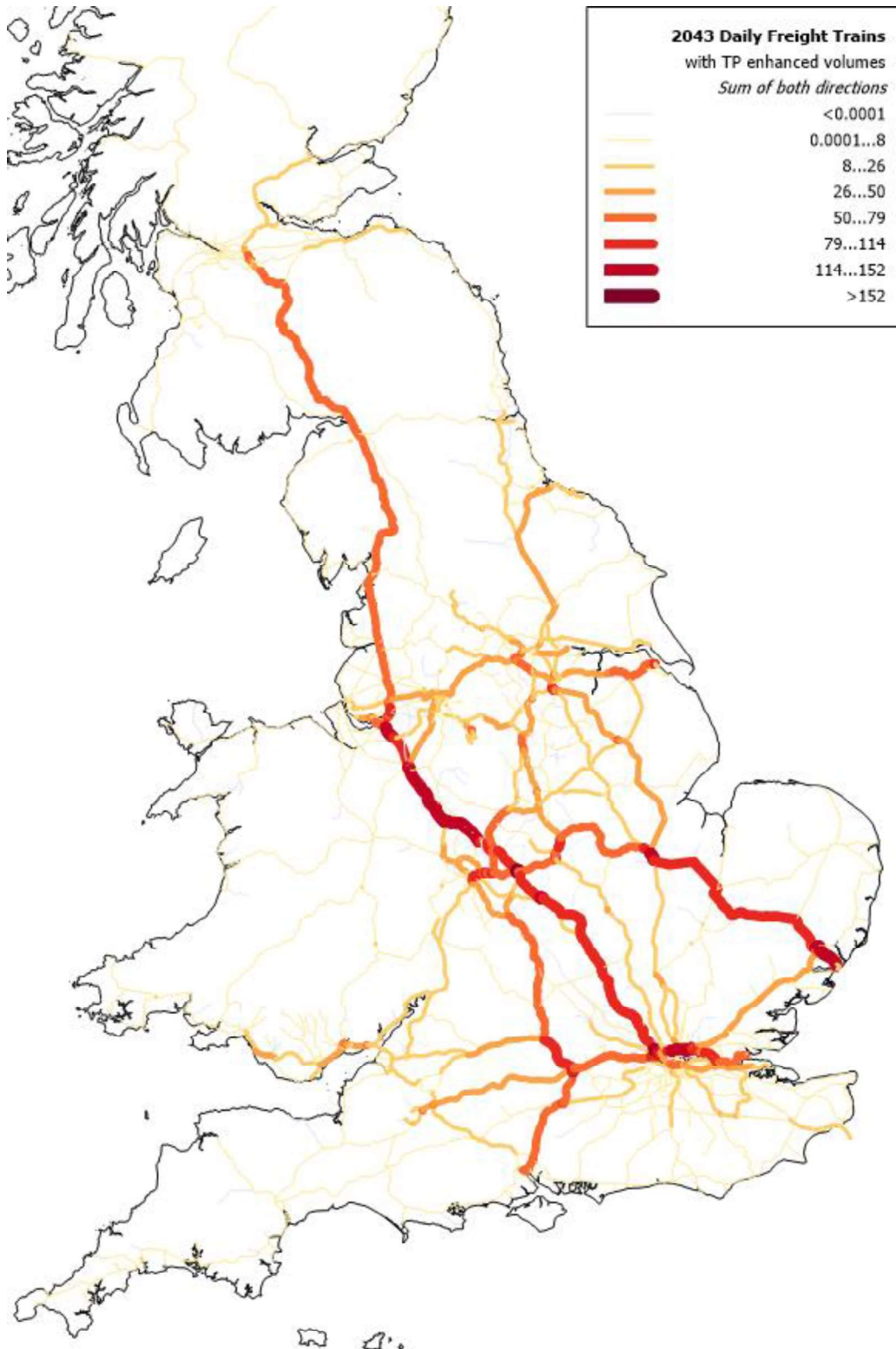
There is, therefore, a generic argument that suggests that secondary routes, serving slower passenger services and with lower levels of demand, may need to be upgraded to provide adequate capacity for forecast freight train volumes. Figure 1 below illustrates the intensity of passenger services on the main lines and through the centre of Manchester and the much lower volumes on the route via Huncoat. This argument could be extended on a national basis whereby intermodal trains from the south-east could pass via Doncaster across the Pennines, via Huncoat, to Scotland.

Figure 1. Projected daily passenger trains post Trans-Pennine upgrade (source MDST)



Figure 2 describes projected demand (from studies using GBFM for other agencies) for freight trains in 2043. It will be observed that, based on current routeing assumptions, very strong demand is forecasts on main line north-south routes, particularly from the south-east ports, and moderately strong demand on the principal Trans-Pennine route from the Humber, all being shared with frequent passenger services. 4 to 5 freight trains per hour per direction are forecast on the west Coast Main Line at the point it crosses the Manchester Ship Canal. By contrast, freight and passenger demand on the route through Huncoat is modest.

Figure 2. 2043 Freight trains (assumes load gauge upgrade on Trans-Pennine upgrade, source MDST)



To use such secondary routes would require, in tandem, the wider adoption of lower deck wagons (generally known as 'low-liners'), which allow 9'6" high containers to be carried within the W8 loading gauge. Such wagons exist; there are some 150 such platforms, owned by DRS and working for a supermarket between inland terminals such as Daventry, Central Scotland, Cardiff, London and Teesport. They are believed to be around 10% more expensive than the most common type of wagon currently being built for UK operators (the 'Ecofret') but offer much more flexibility as the main line routes 'fill up'. However, because of that marginal extra cost, the short term availability of older 'megafret' wagons (which require a W9 loading gauge to carry 9'6" high containers) and some doubts concerning their suspensions (now entirely rectified) no further low-liners have been built for around 10 years.

In the case of Huncoat, it is important to discuss how the issue of loading gauge can be best dealt with. At present the available gauge between Leyland and Blackburn is W7. Between Todmorden and Wakefield (via Healey Mills) the available loading gauge is W8, beyond which mainline gauge at W10 or W12 is available. However, between Blackburn and Todmorden the available gauge is only W6. We discuss later the overline structures that currently define that loading gauge.

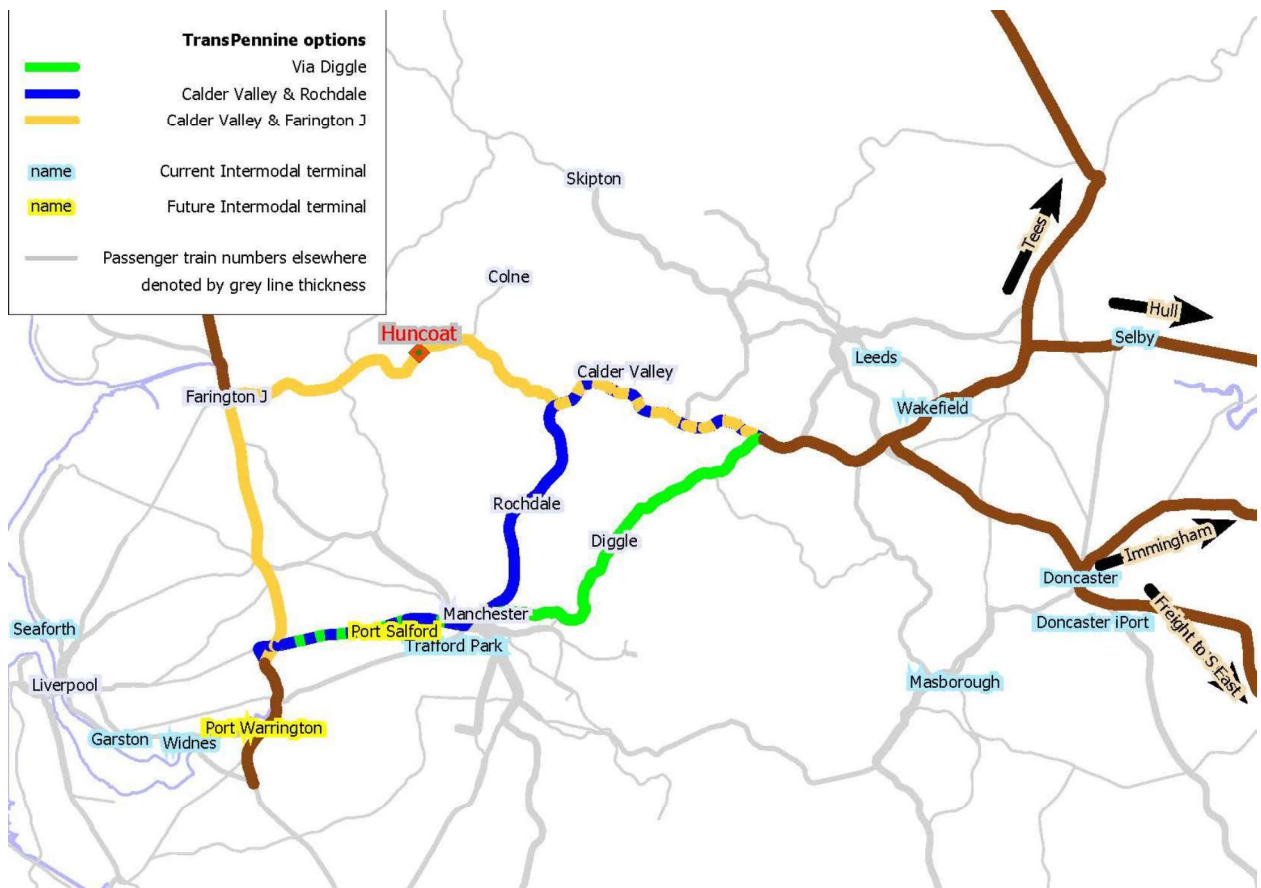
The re-development of the principal Trans-Pennine passenger route (between Huddersfield and Manchester) has attracted a great deal of political and operational interest, and the absence of a freight dimension led, eventually, to a campaign whereby an hourly freight path was built into the project. However, it is by no means clear that a coherent scheme has really yet been established. This is because:

- It has been agreed with Network Rail that 9'6" high containers carried on low-liner wagons can already be moved along the route at night when passenger services will not be thereby delayed (say between 2200 and 0600) by moving slowly through the tightest clearances. Such timings suit freight customers from a service point of view but only if the wagons can also be used during daytime hours on other routes to maintain asset utilization.
- Low-liner wagons were, until recently, treated with some suspicion because of a derailment in 2013, but that issue has now been resolved through modifications to suspensions.
- It has also been concluded that to improve the loading gauge to allow daytime freight operation even at W8 gauge will require radical work to be conducted to tunnel floors and that in those circumstances work may as well be completed to allow W10 or W12 clearances (to allow 9'6" containers to pass on standard height wagons).
- However, freight trains would still only be able to operate amongst the planned upgraded passenger services if electrically hauled (to move sufficiently quickly uphill across the Pennines) to deliver that hourly path, and electrification is not planned until 2032.

- Furthermore, even that is ‘subject to capacity planning’ particularly as trains entering the North-West would (a), have to pass through central Manchester and (b), to reach Trafford Park itself would have to pass through platforms 13/14 of Piccadilly station, where only one freight path per hour is programmed, and that path is already used by the trains arriving from the south-east ports.

An alternative would be to use the Healey Mills – Todmorden – Copy Pit – Huncoat – Leyland route (i.e. via Wakefield, Calder Valley and Leyland in figure 3) and to run trains along the WCML to a terminal in the Warrington area or, of course, use a terminal at Huncoat itself. However, while this route does not have significant capacity constraints and does continue to accommodate heavy (1,700 tonne trailing weight) trains (despite the gradients), the available loading gauge between Leyland and Todmorden is only W6 or W7. The routeing options are described below in the figure, which also shows where the current and planned intermodal terminals are located, as well as Huncoat. Longer distance services between the south-east and Scotland could enter the area shown in the figure through Doncaster and leave via Preston and Farington Junction.

Figure 3 TransPennine options



Fortunately, a recent study for the RSSB in 2018 and led by DGauge, which examined whether a more economical case could be made for secondary routes using low-liner wagons could be established, examined the route via Healy Mills, Todmorden, Huncoat and Farrington Junction as its case study. It is therefore understood which structures would require attention if this route was to be developed at what would be known as W7A gauge (effectively very similar to W8, see the appendices). We do not include those identified as requiring authorization as 'reduced clearance or 'special reduced clearance' as they can already be passed.

The overline structures that are 'foul' are (with level of conflict):

- Side Beet Bridge (no 9) -6.5mm
- East Cabin Bridge (no 14) -199.6mm
- Altham Lane Bridge (no 42) -108.0mm
- Manchester Road Bridge (no 48) -134.8mm
- Chatham Bridge (no 22) -30.3mm
- Kitson Wood Tunnel -5.8mm
- Sowerby Bridge Tunnel -4.0mm
- Elland Tunnel -52.9mm

Small levels of being 'foul' may be dealt with by limiting the speed of freight trains through those structures on less busy lines. The above calculations take into account the movement of rail vehicles at 120 kph. Track can often be lowered to a small degree by reducing the amount of ballast.

The three principal 'obstructions' are clearly East Cabin Bridge (the passenger footbridge at Rishton), Altham Lane Bridge (within the proposed site) and Manchester Road Bridge at Burnley.

The footbridge could be readily replaced or rebuilt.

As will become clear when discussing track layout, the Altham Lane bridge will need to be taken down in any event if competitive length trains are to be accommodated. Altham Lane bridge does not carry road traffic for which there is no convenient alternative routeing not already available. It could be rebuilt or crossing moved to the west. Traffic to Altham Industrial Park will generally be reached via the A56 and need not use Altham Lane south of the railway. Additionally, the closure of Altham Lane would offer advantages for the residential part of Huncoat and the Garden Village development on the former power station site by supporting the mitigation of environmental impacts. The existing railway and cutting would provide planning demarcation between residential development south of the existing railway and effective, modern commercial development north of the railway.

However, Manchester Road Bridge in Burnley (an arched road over rail bridge) does represent an additional challenge. It is located tight up to the platforms of Burnley Manchester Road station and carries a reasonable busy road. The bridge would need to be reconstructed if adequate loading gauge

was to be created, unless an approach known as gauntletting was adopted. This involves bringing the two tracks closer together to increase the clearance at the 'cant' rail (the 'top' corner) and introducing a signalling system which prevents trains passing each other on a short length of track (perhaps 200 metres) either side of the bridge. This would not cause a problem with the existing passenger timetable; eastbound trains are currently timetabled to pass at XX.20 and XX.32 while westbound trains pass at XX.04 and XX.53; there would be no conflict under the current timetable. Care would need to be taken with the relationship between platform edges and positioning of the tracks. This approach is not generally adopted in the UK but is conducted elsewhere in the world and would be completely safe. Alternatively, if the cost of bridge re-building proved excessive, the route could be singled over a short distance so that only one platform is used at the Manchester Road station.

Observation of passenger trains in the platforms shows that train floor height is currently significantly above platform level. This may indicate that excessive ballast is under the track and some track lowering might be possible to improve loading gauge through the bridge.

It is Network Rail's policy to plan for intermodal trains of 775m length. To achieve this a total length between switches off the mainline of around 1,000 metres length would be required if mainline connections are provided at each end. This overall length would mean that the site as initially identified would not be long enough. The location of a turnout to access the terminal is constrained to be west of the bridge carrying the mainline over the A56. We would therefore propose that Altham Lane be closed the through traffic at the terminal and the rail bridge be removed. This would create adequate length for (say) a 3 track terminal with spurs at each end to allow locomotives to detach and run around the train to re-join the other end. That would leave two tracks for cargo handling, which could be achieved, initially, using reach-stackers that could 'lean over' one track to reach the other. Depending on the actual terminal configuration, a total of 8 switches and approximately 2,700 metres of plain track would be required, together with hardstanding of around 30,000m² plus fencing, a weighbridge and an office/security gatehouse.

We have proposed some layout options in the appendices but other layouts could be considered; suffice to say that a layout is achievable on the site. In the event that connections at the western end of the site prove challenging, trains from the west could be turned at Rose Grove and run back to Huncoat using an eastern connection only.

Freight Capacity

Suitable sites for new intermodal terminals are ones where the adjoining railway line has sufficient freight path capacity to both meet overall projected demand and offer a spread of arrivals and departure times across the 24 hour period. The latter condition is particularly important (and often overlooked), as to maximise rolling stock asset utilisation it is vital that freight services can operate 24 hours per day.

In practical terms, for large terminals at least an hourly path inbound and outbound across the 24 hour period is regarded as being the minimum requirement. At smaller terminals such as is being proposed for East Lancashire, the availability of either an inbound or outbound path in each daytime hour can be regarded as sufficient, with additional paths overnight to provide the requisite spread across the 24 hour period.

Therefore, to assess the Huncoat site and ascertain whether it meets the requirements described, a timetable and pathing exercise has been undertaken. In summary, the exercise involved identifying potential freight paths (both directions) within the current May 2022 Working Timetable (WTT)¹ both to and from Huncoat that do not require the timings or stopping patterns of existing services (passenger and freight) to be adjusted.

To identify the potential freight paths, the current May 2022 WTT between 07:00 and 19:00 on a typically representative day was plotted onto train graph diagrams (it is assumed that further paths will then be available late evening and overnight when passenger services are not running). *Thursday 19 May 2022* was selected as being a typically representative day. *Train graph* diagrams are a visual representation of the WTT, allowing the location of trains at a particular moment in time to be identified (each line represents the movement of a particular train service through distance and time). When additional trains are being 'tested', they allow potential pathing conflicts to be identified relatively quickly.

The geographic scope examined was as follows:

- Westbound – East Lancs line between Huncoat and Farington Junction on the West Coast Main Line; and
- Eastbound – East Lancs, Copy Pit and Calder Valley lines between Huncoat and Thornton LWN Junction (Dewsbury) via Copy Pit, Brighouse and Mirfield.

The following baseline assumptions were also adopted:

¹ WTT – The railway industry's operational timetable that includes all passenger services, freight trains, light locomotive and empty coaching stock moves and engineering trains.

-
- Current *Timetable Planning Rules*² for the respective routes, including minimum headways between trains and junction margin times;
 - The sectional running times (i.e. the timings between designated timing points such as stations and junctions) for the daily bulk bitumen train that runs between the Humber and Preston via the routes considered (passing Huncoat en-route).

Having plotted the existing services from the WTT (predominantly passenger) for the selected time period onto the train graph diagrams, potential freight paths were subsequently identified and inserted onto the train graphs based on the running times described. This process provides a useful indication of likely freight path availability to a level of detail appropriate for this study, albeit more detailed work would need to be undertaken when actually applying for paths in the WTT. In particular, as intermodal trains currently do not operate on the routes considered, the precise sectional running times would need to be established using train modelling software (such as *Railsys*).

² The set of rules used by Network Rail planners when devising timetables

Based on this analysis, the following arrival and departure times for a Huncoat terminal have been identified between 07:00 and 19:00.

Table 1 Identified potential freight paths via Huncoat

Arrivals from Farington Jn	Departures to Farington Jn	Arrivals from Thornton LNW Jn	Departures to Thornton LNW Jn
0752	0726	0749	0700
0852	0824	0848	0757
0952	0924	0950	0900
1252	1024	1050	1300
1452	1324	1145	1400
1552	1524	1243	1453
1652	1722	1354	1553
1852		1546	
		1848	

The train graph diagrams with the potential freight paths illustrated are appended to the end of this report. Huncoat trains are shown by the orange coloured lines (blue being passenger, red freight and green Q Path trains). Note that the closeness of some of the timings would mean that not all of the potential paths could be utilised. However, there is at least one arrival or departure slot in each hour assessed, and with additional paths likely to be available late evening or overnight there is a sufficient spread over the 24 hour period.

5. COMMERCIAL STRUCTURE

Post privatization in 1993, the rail freight sector forms part of private sector freight industry where ownerships overlap with other modes. While to operate a freight train requires that the traction is operated by a Freight Operating Company (FOC) for licensing and contractual reasons (including the agreement with Network Rail for each timed path through the network) the individual FOCs differ in their ownerships and roles while it is very often the cargo owner or aggregator who takes the commercial risk (and any associated operating grant). The containers themselves are normally provided by the client, who could be a shipping line or a cargo owner (such as TESCO). In some cases, the aggregator will supply the container (some types of containers are known as swop-bodies).

To operate an intermodal service, in competition with direct road haulage, one needs to be able to operate a train (a locomotive + wagons), organise handling at two terminals and arrange local road haulage to deliver and collect.

Locomotives

Locomotives, with their drivers, are generally supplied by FOCs, who will be responsible for formally agreeing the scheduled path with Network Rail, and carry such insurance as is required. A locomotive maybe rented by the day and there will normally be around 3 drivers associated with that locomotive. Typically freight locomotives are 'live' for around 2,500 hours p.a.. In the following exercise we estimate daily costs per locomotive at £2,900 but clearly such rates are a matter for negotiation. The exercise below is simply intended to provide a valid comparison between different railway options using the same cost assumptions. Where electric locomotives can be operated along the entire route from origin to destination they are generally preferred because of their ability to maintain higher speeds on inclines, making them easier to path between passenger trains. However, an increase in electricity prices can encourage a switch back to diesel. On commercial grounds alone, there is little to choose between the costs of operating either form of traction.

Costs by distance are mainly infrastructure charges levied by Network Rail (these are complex and are based on wagon types but for a long intermodal train can generally be estimated at around £1.5 - £2.0 per train km) and fuel costs, where consumption for a large container train will be around 5 litres per km., plus a modest tax of about 8% for railway trains. Diesel costs have risen lately and are currently around £0.85 per litre. It follows that (before overheads) a train that travelled 300 kms @ a mean speed of 50 kph (which is the mean speed for intermodal trains) and took 6 hours to turnaround at each end of the journey (24 hour round trip) would cost:

Table 2 Hypothetical cost of an intermodal rail service*Fixed Costs*

Locomotive (inc. drivers)		£2,900 per day
Wagons	18 x £122 per day	£2,196 per day
Total		£5,096 per day

Assuming 28 boxes/train (80% mean loading) and train set can undertake one round trip per 24 hour period

Fixed cost/container £91

Running Costs (per direction)

Traction	300km x £3.71/km	£1,113
Track Access - wagons	300km x £1.36/km	£408
Track Access – traction	300km x £0.28	£84
Total		£1,605

Running costs/container £57

Total cost per container **£148**

If neither end rail-served

Local collection/delivery	£280
Terminal lift 2 @ £25	£50
Total door-door:	£478

If one end rail-served

Local collection/delivery	£140
Internal shunt	£ 30
Terminal lift 2 @ £25	£ 50
Total door-door:	£368

As compared with the cost of direct road haulage (300 kms from origin to destination + 50 kms repositioning to secure a backload):

Table 3 Hypothetical cost of direct road haulage

Distance based (350km* @ £0.52):	£182
Time based 9.5 hours* @ £31/hour:	<u>£295</u>
Total door-door:	£477

*including re-positioning

**65km/h and 2 hours for each load/discharge

It follows that providing one end of the journey was rail connected (at a port) then there would be a significant saving in using rail. However, if neither end of the rail journey was rail connected then there would be a loss and the break even distance would be 300 kms instead of below 150 kms.

Saving by rail if rail connected one end:	£109
If there is a road leg each end (but no internal shunt required):	break-even

Approximate break even distances:

If rail connected one end:	140 kms
If not rail connected:	300 kms

This worked example illustrates the importance of services operating from a port or being to/from a rail connected inland site. For port based traffic, some terminal operators charge higher lift charges to rail instead of road because of the savings that rail offers and secure the benefit.

A Department for Transport grant system, generally known as Mode Shift Revenue Support is offered by Government to reflect the environmental savings (non-user benefits) of a switch to rail where the apparent cost by rail (and local road haulage) exceeds the cost of direct road haulage. Operators (generally FOCs but can be aggregators) can bid for grant up to a budget limit. This approach would apply to services of under around 250 kms and would include any services from east coast ports to Huncoat. At present these grants are allocated to services from the major ports and for domestic services to and from distribution parks in the Midlands. In practice such grants are likely to reduce the road to rail break-even distance by a round 20 kms..

The principal Freight Operating Companies are:

- Deutsche Bahn (DB). DB is owned by the German State, which acquired it from English, Welsh & Scottish Railways, itself a US owned company that bought 5 of the 6 freight divisions that British Rail sold after privatization. Its market share has fallen to below 50% (from over 90%) and its intermodal division has been (effectively) sub-contracted to Maritime Transport, the UK's largest container road haulier. Maritime Transport now undertake a good deal of domestic distribution work for manufacturers and operate several intermodal rail terminals (including, in the North, at Wakefield and one at Trafford Park). Effectively, DB hauls the trains that Maritime Transport pays for while Maritime Transport fill the space on those trains. DB has now transferred its terminals to Maritime Transport. DB does separately haul 2 trains per day per direction for another haulier/aggregator, Malcolm, between Scotland and the Midlands.

- Freightliner (originally a BR subsidiary) is now owned by Brookfield, which also owns PD (the operator of Teesport). Freightliner once operated all the intermodal trains in the UK but have steadily lost market share. They operate their own terminals (in the North) at Leeds, Trafford Park and Garston. Freightliner's business model is to effectively retail space on their trains, mainly to shipping lines under different contractual arrangements.
- GB Railfreight was established shortly after privatization and has grown strongly in several markets. It operates several intermodal trains per day from the ports, using third party terminals (often those of Maritime Transport, with whom it works closely).
- DRS is a subsidiary of Nuclear Transport Solutions (itself a subsidiary of the Nuclear Decommissioning Authority) but effectively operates as a self-financing private sector operator. In the case of intermodal it hauls for TESCO and for Russells (another aggregator), using third party terminals
- Colas is a subsidiary of Bouygues, a French construction and telecoms industry conglomerate. It does not operate intermodal services although there is no reason why it should not on behalf of an aggregator.

Three domestic aggregators contract with FOCs to operate intermodal trains; Russells, Malcolms and Maritime Transport, in some cases hauling containers for supermarkets on these multiple client trains. TESCO contract directly with DRS to operate its trains, which do carry third party traffic within their own containers as backloads. Peel Ports and PD ports also act as aggregators from their own ports while shipping lines will also contract with FOCs on a train load basis. The FOCs also haul for bulk clients such as aggregates companies and energy companies such as Drax.

Wagons

Wagons may be rented in from wagon leasing companies (e.g. from VTG), bought or hired in with the locomotive from the FOC. Securing suitable wagons is a crucial competitive issue, particularly as market growth is limiting the numbers available and that wagon manufacturing capacity across Europe appears to be limited. Capital costs per new wagon platform have now reached between £150,000 and £200,000 and daily lease costs (with maintenance) would be some £60. Only one wagon builder remains in the UK (W H Davis) who will construct both their own designs (such as the low-liner) and those designed by third parties.

Several types of intermodal wagon are currently in the market. Their characteristics are crucial to the competitiveness of services offered.

The standard intermodal wagon that has operated in the UK for almost 60 years is 60' long and approximately 1 metre above rail. This allowed it to carry 8' containers when they were standard. Several routes were upgraded by lowering tracks or adjusting overline bridges to allow 8'6" high containers (at W8 gauge) as they became standard some 50 years ago.

Some 30 years ago the global shipping lines began to introduce 9'6" high wagons. To accommodate these, both well wagons (the container carried between the bogies, leading to a degree of wasted train length) and low deck wagons (using smaller wheels) were built, to carry 40' long containers. However, neither wagon type has proved popular and a number of mainline routes were upgraded in loading gauge terms to allow for a gross wagon plus container height of 3.90 metres. This is known as W10 loading gauge, with a marginally wider gauge (W12) allowing wider refrigerated containers of up to 2.60 metres with to be carried).

However, at approximately the same time wagons were introduced with 50' long decks to carry pairs of swap bodies were introduced with a view to developing services through the Channel Tunnel and a new loading gauge introduced (W9). The design which emerged most successfully was one with a deck height of 0.825 metres that allowed 9'6" high containers to be carried at W9 gauge. For both domestic and intra-European markets the standard length of container that emerged was 45' long to equate to the length of the road trailers which containers were competing with. These wagons, known as 'megafrets' are readily available and are facilitating the current growth in the intermodal market.

They suffer, however, from being wasteful in terms of train length and do require at least W9 loading gauge. In response to this weakness, a 45' long deck wagon was introduced some 10 years ago called 'low-liners' with a deck height of 0.73 metres which allowed them to carry 9'6" high, 2.5m wide containers within W8 loading gauge. This meant that trains could use their length efficiently and operate over a wider range of routes. This wagon type suffered a derailment in 2013 on poor track and was for some years limited to West Coast Main Line services (because track quality could be better guaranteed). In practice, the 150 platforms (75 platform pairs) available are either operating by DRS for Tesco or are held in reserve awaiting (we believe) suspension modification now that a review of the design has led to them being fully approved.

Meanwhile, the trend in the deep-sea (inter-Continental) market for 40' long containers to be used much more commonly than 20' long containers meant that 60' wagons were not being efficiently utilised. This has led to the introduction of 40' long deck wagons known as Ecofrets (2 or 3 platforms in a permanently coupled 'wagon').

The current preference in the market appears to be to invest in Ecofrets to deal with growth in the deep-sea market and to use megafret wagons (and a small surplus still exists) to develop intra-European and domestic markets. A very rough estimate is that there is scope to expand the current intermodal market by around 10% using wagons currently available but thereafter new wagons will be need to be built.

At present, wagons are expensive to build because of the high price of steel and a severe shortage of wagons sets as a consequence of the war in the Ukraine, where many wheel sets for the European market were manufactured.

A description of loading gauge across northern and central England is shown in the appendices.

Terminals

Intermodal terminals (i.e. terminals handling containers) are not only operated by FOCs (in the case of Freightliner), but also by port stevedores and road haulier/aggregators. Typical charges are around £25 per container switched between road and rail or rail and road (typically 2 lifts to achieve a single transfer between modes). Charges at some ports are higher reflecting their competitive position. There are also transfer costs between different parts of large estate (e.g. from a terminal to a warehouse, typically £30 per direction). Terminals consist of tracks to berth trains, large areas of hardstanding to place containers and lifting equipment, which may be 'reach-stackers' (very large forklift type equipment) or overhead cranes. Reach-stackers require very heavy duty paving but are cheaper for low volume terminals.

Terminals need to be able to berth long trains to ensure competitive services. The longest trains generally assumed within the UK are 775m long, although few at present exceed 650 metres. Almost all intermodal trains exceed 500 metres. Scale economies are such that the longest trains possible with a single locomotive are a pre-requisite while Network Rail policy is to maximise train length to minimise the number of trains competing for paths on the network. To accommodate such trains and to allow room for a locomotive to leave a train and to pass to the other end for the return trip will require a site of at least 1,000m length.

Local haulage and empty container facilities

Where the destination for the container is 'off site', haulage costs can constitute a significant additional cost, as we show above. To keep this cost to a minimum it is important that there are facilities on site for road haulage companies to base their activities (to avoid the extra costs of running to and from the terminal to collect their first load) and that there is also room on site to store empty containers so that they can be inspected and repaired and move out to collect backloads without extra haulage costs.

Customers

The customers for intermodal services will generally be shipping lines or major retailers although domestic manufacturers are now seeking rail services (e.g. Coca Cola and Nestle).

Shipping lines will already have arrangements with existing operators to shuttle containers by rail between ports and established inland terminals. This is a highly competitive market but where a new terminal (and service) develops then there is an opportunity to attract traffic through serving a sub-region that did not hitherto offer rail. All none of the major global container lines have contractual

arrangements with FOCs in the UK and one contracts for whole trains (e.g. MSC). None operate their own inland terminals.

Retailers will generally use rail between their current National Distribution Hubs (Tesco and Sainsburys at Daventry, ASDA at Lutterworth a few kilometres from Daventry) and regional distribution centres. TESCO is the most advanced in using rail, largely because their scale makes it easier to fill whole trains.

For a new terminal operator, a crucial consideration will be developing a base load service to kick-start a terminal. This may require attracting an aggregator who itself will need to find 2 or 3 principal clients.

A further important constraint will be the number of trains able to leave a port, and particularly ex Felixstowe because of network constraints. However, it is definitely the intention (subject to funding) of Network Rail to expand capacity to address rising demand from the ports and it is reasonable to suppose that additional capacity will be put in place, conceivably at the expense of some passenger capacity.

6. DEMAND

While there is a substantial volume of freight available within NE Lancashire, it is most unlikely that any distribution company would sub-divide their freight volumes between different warehouses or terminals within the North West region. A terminal or distribution centre at Huncoat would be in competition with those elsewhere in the region, and we have already described how this can be calculated in terms of distribution costs and corresponding land values.

It is therefore important to consider demand for the whole of the region.

The table below summarises overall demand for road and rail freight in the region using current estimated volumes.

Out of a total estimated 1,352 million tonnes of road and rail freight traffic lifted in 2020 in Great Britain, rail accounted for around 5.5% of goods lifted. Given rail's mean length of haul around double that for heavy goods vehicles, rail's share of tonne kms is around 10%, heavily concentrated in the intermodal and aggregates sectors.

Of that 1,352m tonnes lifted, around 12.5% is accounted for by the North West region.

The region does not capture high volumes of bulk rail freight. There are no rail connected quarries, the petrochemical industry on the Mersey no longer uses rail significantly and coal mining (and coal fired power stations) have been closed down. However, the region does capture a higher proportion of intermodal rail freight.

Table 4 Regional rail freight summarised (m tonnes), source MDST

	Road plus rail 2020		Intermodal rail 2021					
			Ports		domestic		total	
With region	To NW	From NW	To NW	From NW	To NW	From NW	To NW	From NW
N East	4	4	-	-	-	-	-	-
N West	108	108	-	-	-	-	-	-
Yorks & H	13	15	-	-	-	-	-	-
E Mids	12	8	0.09	0.09	0.02	-	0.11	0.09
W Mids	10	13	-	0.01	-	-	-	0.01
Eastern	5	4	1.55	1.43	-	-	0.55	1.43
G London	1	1	-	-	-	-	0	0
S East	3	3	0.67	0.53	-	-	0.67	0.53
S West	2	3	-	-	-	-	-	-
Wales	5	6	-	0.13	-	-	-	0.13
Scotland	5	5	0.07	0.04	-	0.01	0.07	0.05
Total	168	169	2.40	2.23	0.03	0.02	2.43	2.25
GB total road + Rail	1352	1352						
of which rail	74	74	16.00	16.00				
of which intermodal rail					2.13	2.13	18.13	18.13
Rail share	5.5%	5.5%						
N West share			15.0%	13.9%	1.4%	0.09%	13.4%	12.4%

The regions intermodal terminals accounted for a total of 4.68m tonnes of intermodal freight, reflecting one end of 29.9% of all international (port based) intermodal freight trips (by tonnes) in the UK but only 2.3% of all domestic intermodal freight trips; 25.8% overall. North West terminals (and Trafford Park terminals particularly) play a major role in the movement of international traffic but only a very small role for domestic traffic. This is dominated by traffic between Scotland and the 'Golden Triangle' in the East Midlands and includes none of the 10m tonnes of road freight between Scotland and the North West.

Table 5 describes estimates for the current volume of container units between the North West and principal ports (i.e. those with the scale to justify train load volumes; a unit maybe a 20', 30', 40' or

45' long container, each equating to a 'lorry load'). The data is from GB Freight Model which itself produces results that correspond to total volumes through each port as control totals.

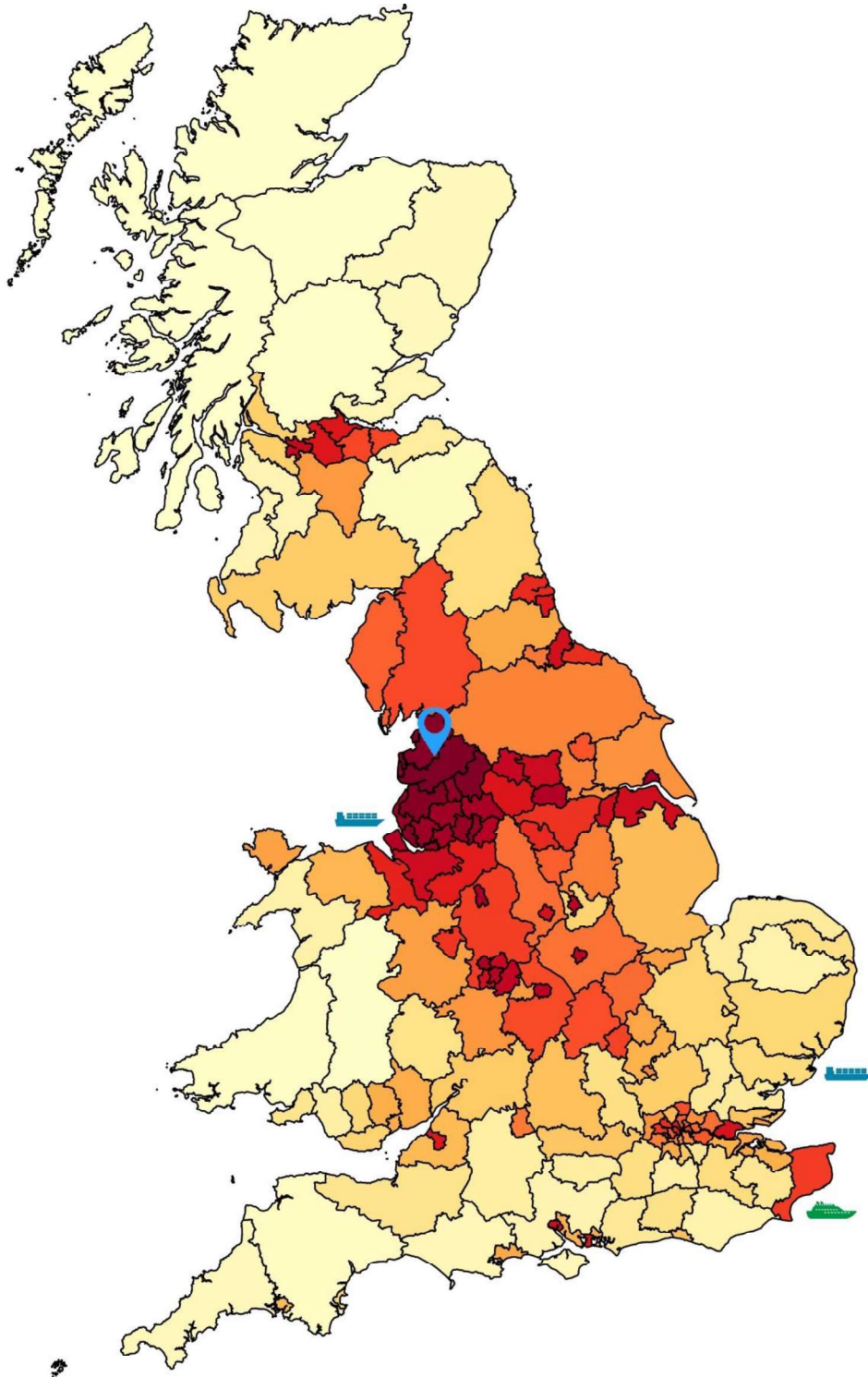
Table 5 Estimates of annual container unit volumes to + from major ports (road + rail 2021 level), source MDST

Port:	Liverpool	Felixstowe	L.Gatew'y	S'ton	Hull	Immingham	Tees
Lancashire	23,639	35,153	9,065	18,026	11,358	7,220	5,671
W Chesh.	7,093	11,952	3,310	5,746	1,445	1,657	868
E. Chesh.	5,271	13,019	3,635	6,365	1,301	1,952	808
Merseyside	29,960	32,996	7,925	17,213	6,186	5,336	2,877
G Manch.	40,864	73,217	18,070	38,343	24,963	18,849	7,166
Warrington	5,132	8,091	1,911	4,373	1,974	159	718
Total	111,619	174,428	43,916	90,066	47,727	36,523	18,108

Each daily service will require approximately 15,000 units (2 directions combined) to be commercially sustainable. This implies that a terminal only serving Lancashire could sustain a service from Felixstowe if rail market was around 40%. However, it needs to be recognised that much of this traffic (by rail) already serves Lancashire via the terminal at Trafford Park and to a lesser extent, the two terminals in Merseyside (at Widnes and Garston). The freight market is highly competitive and entirely within the private sector. There is no mechanism available to direct traffic to specific terminals.

Figure 4 below describes the distribution of all road and rail freight from Lancashire as a heat map. While most freight is relatively local (and therefore not suitable for intermodal rail freight) it will be seen there are points of more remote demand at the major ports and in Scotland.

Figure 4 Lancashire freight distribution (source MDST)



MDS Transmodal is responsible for the current rail freight forecasts posted on Network Rail's web site and is currently updating these projections. However, overall conclusions are unlikely to be significantly different. The current forecasts for intermodal traffic by rail are:

Table 6 Total rail freight growth forecasts for the North West (intermodal, million tonnes)

	2016/7	2043/44
Domestic	218	2,334
Imports	4,974	11,108
Total	5,192	13,443

It will be seen that while there is a forecast for a 123% growth in imports by rail (against an underlying market growth of around 80% over the same period), a high rate of growth is anticipated for domestic intermodal traffic by rail of a near 10 fold increase. This may appear extraordinarily high but there are several explanations:

- There is a large volume of road freight arriving in the region from large distribution centres (DCs) in the Golden Triangle which send goods into the region by road. A significant proportion of new DCs are being built on rail linked sites, drastically cutting the door-to-door cost of making use of rail for onward distribution.
- The anticipated expansion of rail linked distribution sites in the North West (for example at Port Salford, Parkside or Port Warrington).
- The very substantial volume of traffic moving between the region and the central belt of Scotland (5 m tonnes in each direction), representing a long-distance opportunity that appears attractive for rail
- The growing competitiveness of rail as labour and fuel costs raise the relative costs of using road
- Improving productivity in the rail sector through a more competitive environment

The current forecasts to 2043/4 equate to an increase in the number of intermodal trains arriving daily into the North West from around 22 per day (into 5 terminals, existing or planned) to 57; an extra 35 per day. It is currently assumed that (by 2043) there will be new terminals at Port Warrington and Port Salford or Parkside, as well as the existing terminals at Trafford Park, Ditton, Garston and Seaforth. Notwithstanding recent investment, the Trafford Park terminals maybe limited by the capacity of the physical rail network through Piccadilly station but the new terminals (if completed), and the expansion of the Seaforth terminal, would have the theoretical capacity to deal with the above projections. It follows that a new terminal at Huncoat would have to demonstrate that it offers a competitive alternative to these intended terminals if it was to attract investment. This could be based upon some local traffic available in the North Lancashire area and a network advantage for services

from the East Coast ports because of rail transit times, which would allow trains to complete up to two round trips per day. It could also exploit its location between the Scottish market and the East Midlands and East Anglian ports (London Gateway, Tilbury and Felixstowe). The terminal has the potential to provide the most cost-effective service to much of the northern side of the Greater Manchester conurbation and this could serve to enhance its viability, providing trains can reach it.

Because of the rail network capacity issues in the Manchester conurbation, there is the potential for an East Lancashire location to have greater flexibility than those terminals within the conurbation. Once built, and assuming loading gauge and wagon supply were not constraints, it is reasonable to assume it could attract a share of the regional market.

There has been recognition that the current model whereby new rail terminals are being developed by developers of large distribution centres is leading to concentration of terminals ONLY at points of current high demand, and that terminals in more 'remote' areas are not being built (e.g. in the south-west peninsula). A similar argument could be developed for terminals on less busy railway lines that could thereby relieve the main lines, but this would involve making more use of specialised railway wagons that can deal with restrictive loading gauges, and some load gauge upgrade.

Maps describing regional and national rail freight flows are shown above.

A key challenge for any terminal lies in developing adequate scale to fill trains to specific partner terminals. This tends to explain why most routes are to and from the three major deep-sea ports of Felixstowe (38 trains departing per day), Southampton (22) and London Gateway (10). A sub-regional location such as Huncoat faces a challenge of scale. A means of addressing such a challenge could lie in combining its potential market with other markets through trains making 'way-calls'. For Huncoat, the apparent opportunities would lie in:

- developing the North West – Scotland market by Huncoat lying to the north of the North West market so that little traffic has to drive 'backwards' to reach the terminal.
- trains operating between Eastern Region ports and the East Midlands and Scotland VIA Huncoat to serve the NE Lancashire market en-route.
- the Humber ports competing for the Scottish market with the Tees by operating via Huncoat and thereby also serving the North West en-route
- the Tees serving the North West market via Huncoat en-route for the West Midlands.

This approach would exploit the opportunities described in a figure in the appendices that describes the different options for defining Trans-Pennine rail routeing.

The potential commercial partners would include:

-
- PD ports (which hosts distribution sheds for ASDA and TESCO and already operates some 7 intermodal train departures per day)
 - ABP which operates Hull and Immingham
 - Samskip, which operates daily container ships to Hull and has substantial traffic to the North West and Scotland
 - DFDS which operates ro-ro services to Immingham from Germany, Netherlands, Norway and Sweden
 - A2B or Cobelfret which operates container services to Immingham and Killingholme respectively
 - Containerships which operates container services to the Tees from the Baltic
 - Supermarkets and other retailers seeking to serve multiple regions with the same rail services from established DCs either within the ports at or near rail linked DCs in the Golden triangle

All these options would require load gauge upgrade work and the availability of low-liner wagons but would address the issue of scale. This strategy would have the advantage of rendering Huncoat a potential (rail based) national distribution centre and allow trains currently passing through both London and Manchester and the West Coast Main Line to avoid all three and utilise secondary routes instead. There may also be an opportunity to add South East to Scotland trains (see below).

7. LAYOUT, CONNECTIONS AND OTHER CONSIDERATIONS

It is of crucial importance that any terminal site can satisfy a number of conditions that include any gradients and the track configurations that are possible and facilitate effective operations.

The terminal and loading and unloading tracks should be level or near level. The mainline passing the site is on a rising gradient west to east up to Altham Lane bridge and then approximately level to the crossing over the A56 (NEEDS CHECKING). The land allocated for the terminal (between the motorway, M65/A56, the mainline and Altham Lane) is approximately level with the mainline tracks. However, the land to the west of Altham Lane is of the order of 3 metres higher than the land to the east. To extend the tracks from the eastern area into the western would require some earthworks, but the scale of these would not be unreasonable for a project of this type.

Appended to the report are two indicative track layouts for the reception tracks and intermodal terminal. Connections with the main line facing both directions will be required in order to receive/despatch trains either from the WCML or via Copy Pit and Calder Valley routes to the east. In each case the connections would consist of a switch from the main line and a crossover, alongside associated signalling equipment. The layouts are designed to handle trains up to 630m trailing length, this being the maximum length of train that can be accommodated at the Port of Felixstowe. The main difference between the two layouts is the location and size of the intermodal terminal, with Option 2 allowing for a larger storage yard.

The east-facing connection would be just to the west of where the railway line crosses over the A56, while the west-facing connection would be to the east of Huncoat station. A reception track of around 1,550m in length would run between the two connections. This track is currently shown to be routed behind the property to the north of the main line at the end of Marshall Avenue (High Brake Cottage), meaning that this property would not need to be demolished (albeit if it was acquired and demolished the reception track could be routed closer to the main line).

A second parallel siding of around 700m length would be located on the eastern side of the site (between the A56 and Altham Lane) immediately to the north of the reception track. This would act as a locomotive 'run-round' track so that main line traction does not become 'trapped' within the site (and therefore require use of the main line to switch ends). A third track would then be utilised for loading/unloading containers. In Option 1, this track and the intermodal terminal (green-shaded area) would be located between the second 'run-round' siding and the M65. Option 2 would locate the handling track and intermodal terminal to the centre of the site (again green-shaded area), providing a larger storage yard.

We are aware these proposals may conflict with the Garden Village project being developed by the local authority.

When trains arrive from the main line, they would initially enter the site and come to a halt on the reception track on the eastern side of the site (to the south of the second parallel 'run-round' track). The main line traction would then detach from the wagons and ('running round' if necessary) then enter the intermodal terminal track, attaching to the wagons ready to depart. It would then draw them out into the reception track on the western side of the site, before propelling them into the vacant second parallel siding. The main line traction would then return to the newly arrived rake of wagons, attach before drawing them backwards into the into the reception track on the western side of the site, and then propel them backwards into the intermodal terminal track. It would then return to the departing wagons (running round if necessary) before attaching and then await its timetabled departure slot. Other than at times of train arrivals and departures, the site track network would be 'isolated' from the main line tracks, thereby allowing internal train shunting independent of main line train movements.

Also on the site there would need to be an empty container stacking site and a road haulage depot so that HGVs could always start their journeys on site when delivering to local receivers.

The most straightforward redevelopment of the site would be to utilise Altham Lane's motorway bridge and to build a new road parallel with the existing road for around 750 metres to reach Altham Business Park via a new bridge crossing the canal. This would leave an area of some 50 hectares to the west of this road for new shed development. Road access to the motorway would then be via Altham Business Park.

In the event the Altham Lane bridge is not closed and the route maintained as a public road then a wider span new bridge would have to be funded with greater overhead clearance to pass over (say) 4 tracks and its motorway bridge shared between internal freight vehicle movements and regular passenger vehicle traffic.

The existing road over railway bridge would be removed. The brickworks could form an important base load cargo for rail and traffic from the brickworks to the terminal could move via the local road network and potentially a dedicated entrance to the terminal site near Huncoat station. The brickworks is a large one, but has been mothballed in periods of recession within the construction industry. Providing it with the opportunity for rail distribution would enlarge its market and provide greater resilience.

The terminal would ideally have connections to the mainline at both the western and eastern ends. However, provision of a west facing connection from the terminal to the mainline may be challenging because of levels and track curvature and if a single east facing connection was used to access the terminal, the loop existing arrangements at Gannow junction on the mainline east of the terminal might be used to enable locomotives to change ends on trains arriving from the west and then enter the terminal from the east.

Whilst consideration might be given to building a basic facility and then extending it later, it is recommended that three tracks which can accommodate 775m long trains be provided in the first instance.

There are currently a pattern of three passenger services per hour in each direction over the route between Blackburn and Gannow Junction (the divergence of the line to Colne and the line to Todmorden). The line has capacity for introducing freight paths without adverse impacts on passenger services. Passenger capacity can be increased by running longer trains and/or increasing train frequency, with the former being the simplest and lowest cost option. Even if the frequency of passenger services were to be increased there would still be room for freight paths without these adversely on passenger services. However, should capacity issues arise in the future through significant increased line usage, relatively simple measures could be introduced to enhance line capacity (such as 'pathing loops' for freight trains at Blackburn and/or between Rose Grove and Gannow Junction).

8. PROCESS

The railway industry is currently the subject of a significant reorganization whereby Network Rail and the franchised train operators will be brought together as Great British Railways (GBR). GBR will take a closer control over the working timetable and effectively determine the paths provided across the network to the passenger trains that the Department of Transport chooses to operate. The companies that will manage these services on a day to day basis will not be risk takers but simply operate them on a contractual basis. Revenues will go to the Department of Transport and the requirement for a regulator (of Network Rail) is not obvious except for the freight sector.

In the case of the freight sector, the process to be followed remains unclear. Network Rail have commissioned new forecasts (from MDST) which will establish a need for many more paths (capacity) than are currently available. It is most likely that the paths will be 'owned' by cargo owners, ports and aggregators (as the risk takers in commissioning trains) unless the FOC itself is acting as an aggregator (i.e. running a multi-user intermodal train).

All new railfreight terminals have been built by FOCs or other stakeholders out with Network Rail and we assume GBR will take the same detached approach. Investors have included local authorities as promoters and project managers with the facilities then being leased to a terminal operator or FOC. New terminals have therefore been funded from sources such as normal commercial investment, public sector funding (generally ERDF) or a combination. The Government is introducing funding to replace ERDF and the 'levelling up' agenda may perhaps be a source of funding for projects which deliver regeneration and wellbeing benefits. In the north, both the Trafford Park and Wakefield Euroterminals were initially public sector funded but have now both enjoyed heavy private sector investment and are being operated by an aggregator, Maritime Transport, which developed from a pure road haulier that now commissions over 20 trains per day.

Fundamental steps in the promotion and delivery process are the acquisition of land (or securing an option), planning consent and a rail network connection agreement. Clearly the common confidentialities and dynamics around risk and reward associated with planning and uplift in land values within the terminal itself and associated land need to be managed.

The promotion, acquisition of funding and delivery of the infrastructure for an East Lancashire Railfreight terminal will require a 'promoter/client' who may include:

- a) Public sector - either a single local authority or partnership of higher and lower tiers or enterprise partnership. Such a model may include the use of a bespoke, arm's-length company.
- b) A developer who would realise profit through wider developments such as warehousing.
- c) A cargo aggregator (typically a road haulier diversifying into rail) in association with an FOC
- d) A partnership of all or any of the above.

In the case of a new terminal for East Lancashire, it is unlikely that the project promotion formats (b – d) would come forward organically i.e. without there first being significant inputs in terms of preparatory work from the public sector.

There are number of workstreams with needs for differing skill sets within a project of this nature. These can generally be provided by specialist consultants but there is pre-requisite for strategic project promotion capacity and this ideally within an 'intelligent client' role. Experience from the promotion and development of the Telford Rail freight Terminal by the public sector would indicate that an East Lancashire Terminal would need strategic client capacity of the order of 2.5 FTEs for at least two years. Additionally, there would be substantial planning, engineering and legal consultancy inputs to be provided by consultants procured by the client resource.

Generally, the promoter/developer of a new terminal will open discussions with Network Rail on the basis of making a connection agreement. This will involve agreeing layout, track and signalling arrangements, generally so that a safe design can be established and to assure Network Rail that once a train has been forwarded from a point where it can be held without blocking main lines it can be received into the new terminal. Ideally this will be a loop that can be independently managed from the track on which the train is being handled but terminals are designed which do not require this.

However, an agreement about a network connection is not a guarantee that paths can be agreed as this is the responsibility of the FOC, and of course a FOC is not relevant until the terminal is built.

It will be sensible to ensure that a FOC would be available to a prospective terminal operator, and by the same token, useful to identify base load cargo to attract such a FOC!

9. SUMMARY AND CONCLUSIONS

Four themes shape the summary and conclusions:

1. The need for adequately funded, public sector promoter for a project in a sub-region where a project of this type will not happen through pure market force.
2. The rail network issues generally (some of which actually support the use of the Todmorden – Preston line for rail freight) and specifically the restrictive route loading gauge and means of addressing this issue.
3. The need for additional area for the terminal itself and for co-located distribution warehousing.
4. The means of funding, particularly where there are unlikely to be significant values from associated warehousing development that could be harvested to fund the terminal itself within a wholly self-contained project format.

The UK rail freight industry operates in the private sector in a competitive environment. For a terminal to be established at Huncoat in NE Lancashire it follows that, once built, it must be able to provide a transport company operating in this sector with a competitive solution, taking into account the charges levied for lifting containers, the onward road delivery costs from the terminal and the cost per container on board of running trains to the terminal, all when compared with other current or potential terminals in the region.

It will be essential for trains to be able to carry 9'6" high containers, because they are standard EXCEPT for in-house containers operated by the supermarket TESCO on trains that they commission themselves. TESCO have recently expanded the use of trains employing 'low-liner' wagons which suggests that they find them cost effective, using the fleet that was built around 10 years ago.

The route passing Huncoat has the potential to serve a wide range of originating terminals, including at the south-east deep-sea ports, the Humber and the Tees and inland terminals in the Golden Triangle (including the new terminal at Northampton Gateway), on the basis of distance and comparative transit times (see Figure 3).

However, it is most unlikely that this route will be upgraded to W10 or W12 loading gauge between (to the west) the WCML at Farington Junction and to the east, Healey Mills. The costs would probably be estimated by Network Rail at a minimum of £100m.

However, examination of a survey of overline structures between Healey Mills and Farington Junction suggest that a loading gauge of W8 would require only a handful of structures to be modified, one of which would be a bridge on site that could be sensibly removed in any event (see above). That would, however, require that 'lowliner' wagons be employed. Some such wagons do appear to be currently held in reserve but may not be commercially available. It follows that further such wagons may need

to be built by whoever develops a terminal at Huncoat. Recent discussions with their builders suggests they are not more expensive than comparable wagons so that whoever invested in them could potentially re-employ them on other routes or sell them on in the event the Huncoat project failed. Nevertheless, railway wagons are expensive at up to £200,000 per 45' platform.

Initial assessments suggest a terminal could be designed and constructed at Huncoat and that land is available to develop adjacent distribution centres that could therefore provide (a), cargo for the terminal that did not require onward road haulage and (b), local employment. The costs of developing a terminal would be significant at around £15m including around 5,000 m² of hard standing, track and connections. In addition, there would be around £1.5m for three reach-stackers. Given a handling rate of around £25 per container handled, a throughput of some 75,000 containers p.a. would be required to cover operating and investment costs (5 full trains arriving per day). This would not include the costs of network upgrade to achieve the required W8 loading gauge.

In addition, we would envisage the development of a distribution park in the land immediately to the north of the terminal at a gross cost (including infrastructure) of around £400 per m² of development. This would mean that the infrastructure cost of a 2m square feet distribution park plus a rail terminal and rail infrastructure works would imply an overall investment of at least £100m.

To be competitive with other distribution centre parks in the region along the M62 corridor development land values would need to be lower, and this has been discussed in the report. This would mean that profits from the sale of land to distribution centre owners would probably not be available to fund the terminal, as has been the case for terminals in the Golden Triangle area and maybe available along the M62 corridor.

For intermodal traffic to be delivered to existing receivers (e.g. locally or to destinations in Wigan, Oldham or Rochdale etc.), Huncoat would be a competitive location as compared with terminals along the M62 corridor so that the issue would be one of scale; could trains be filled from origins such as Felixstowe, London Gateway, Southampton, east coast ports and terminals in the Golden Triangle (such as DIRFT) and the Scottish central belt given competition from terminals in the M62 corridor? Container trains now typically carry around 35 containers each. Lancashire accounts for around 20% of the container trip ends with the major ports in the North West. That share would realise 4-5 trains per day even at current rail market shares before we consider market growth and the potential for domestic traffics with Scotland.

This could be challenging given that existing terminals along the M62 corridor are already established. If a terminal aspired to attracting 5 trains per day (say 10% of the projected regional market in 20 years' time, implying 75,000 containers p.a.) then it may struggle to serve the number of different sites that a location such as Trafford Park could aim at.

However, one solution to this dilemma might lie in Huncoat's location between the south-east ports and the Golden Triangle and the Scottish central belt. This could allow trains serving Huncoat from the south to also serve the Scottish market on a route that avoided the need to pass through Manchester or along the two track section of the West Coast Main Line south of Warrington. This section was to be relieved (for high speed trains) by the 'Golborne Link' on the HS2 network, but it was announced in June 2022 that this was being abandoned. Careful analysis is required to determine whether such network solutions may be available in the future to relieve future pinch-points.

The key factors that need to be considered can be summarised as follows:

On the positive side:

- A strong warehousing market at present in the UK that could be exploited; this is a viable DC location
- A rail terminal could be designed on the land available adjacent to co-located new sheds to create over 1,000 new jobs at current levels of employment per m² in DCs.
- There are suitable long distance markets that rail can address, particularly North West with Scotland, with South-East/Golden Triangle and with the east coast ports
- Strong Government policy for more rail freight and an official target likely to emerge later this year, partly informed by our modelling for Network Rail (and related to other work for National Highways)
- That growth will fill up the mainline routes so there is a case for developing secondary routes, and Huncoat does lie on the most viable secondary route from the south-east of England to Scotland. The secondary routes are not load gauge cleared for 9'6" high containers on metre high wagons so there is an apparent potential market for 'low-liner' wagons.
- The Huncoat route also offers the only alternative to the centre of Manchester for east – west traffic.
- There is no dependency on reinstatement of the Colne-Skipton rail route.
- In the medium term, more intermodal wagons are required in Britain so there will be a need for risk takers to choose a suitable wagon design (see below)

but on the negative side:

- Impossible without Network Rail funding of some infrastructure fixes, but these are relatively modest in achieve W8 loading gauge. The rail sector has put a great deal of advocacy energy into making the case for the Trans-Pennine route via Huddersfield, with rail freight seen as a supplementary afterthought.
- Requires 'non-standard' low-liner wagons. These do exist but are controlled by DRS, require modification and maybe effectively controlled by TESCO, which is extending its network. While new wagons will be required to expand the UK intermodal market, without direction or

incentives it maybe difficult to persuade investors to allocate new and more expensive wagons to a 'start-up' project.

- Requires a dedicated traffic aggregator prepared to provides guarantees to a terminal investor and a rail traction company and to lease specialised wagons. The aggregators role is to market regular service so that trains are 'full' (say 30 containers per train), he is the key risk-taker. There are very few!
- Funding the terminal will be problematic because, unlike those in the Golden Triangle, land values may not provide sufficient surplus to fund a rail terminal.

Our conclusions therefore are that in terms of market and location there is scope for a railfreight terminal in East Lancashire and that, within East Lancashire, Huncoat is the best location taking account of the rail and highway networks. Approached strategically, including a focus on the sub-regional location of distribution warehousing at Huncoat, a terminal would be a significant driver of regeneration and wellbeing by sustaining existing jobs, creating new direct jobs and improving the general proposition of the sub-region.

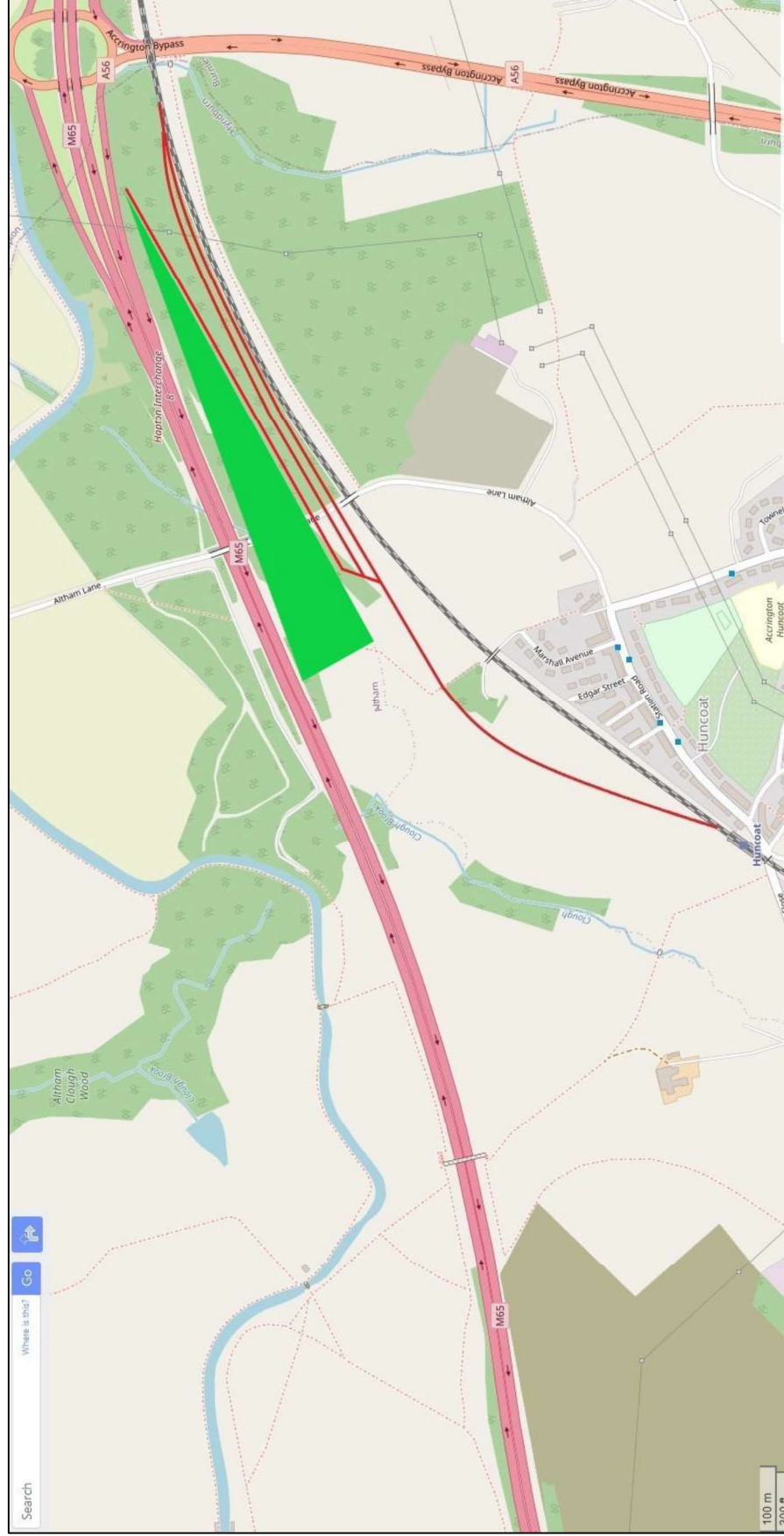
However, there are several factors which suggest that to develop a terminal at Huncoat could be challenging. These factors will need to be addressed in the next steps of any work to move forward the promotion of a terminal at this location.

- The rail route is not cleared to the modern GB standard for intermodal trains at W10 or W12 which means that 'special' wagons will be required.
- Network Rail would still need to invest in some load gauge upgrade. Without such a commitment it would be difficult to attract a wider interest to the site.
- External funding is likely to be necessary. Land values mean that whilst rail-linked distribution warehousing can be developed profitably, there is unlikely to be sufficient additional value created from such development to wholly fund the creation of the terminal itself (even if this were to be made a planning condition). This funding dynamic needs to be quantified through a piece of detailed work involving planners, landowners, councils and development agencies.
- Market forces are insufficient to move the terminal into a project delivery format and there is a need for a strong, well-resourced, public sector promoter/client role to be created.
- The current allocated area for the terminal itself is insufficient and additional land will need to be allocated for warehousing. If this cannot be addressed through local policy planning work, it could perhaps be addressed through the route of the project being designated as a Nationally Significant Infrastructure Project (NSIP).

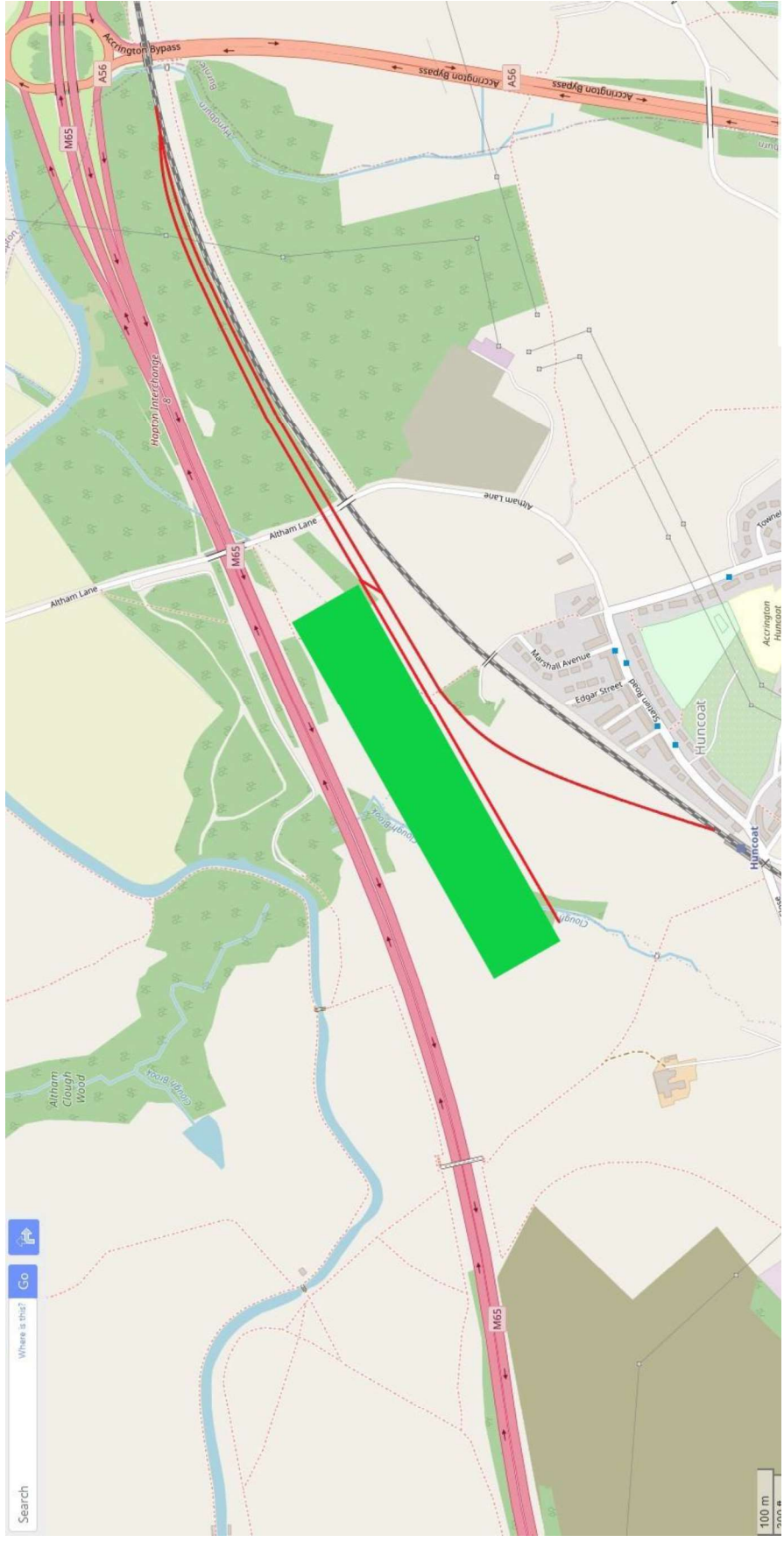
Nevertheless, providing economically long trains can be filled, the local market may be sufficient and there is the physical capacity to construct an adjacent distribution park then the project could be viable. If the case can be made for defining a 'freight priority route' between the south-east, Yorkshire, Lancashire and Scotland (thereby passing via Huncoat) then the case for the terminal would be much stronger, but such an approach has yet to be considered in any strategy documentation.

APPENDICES

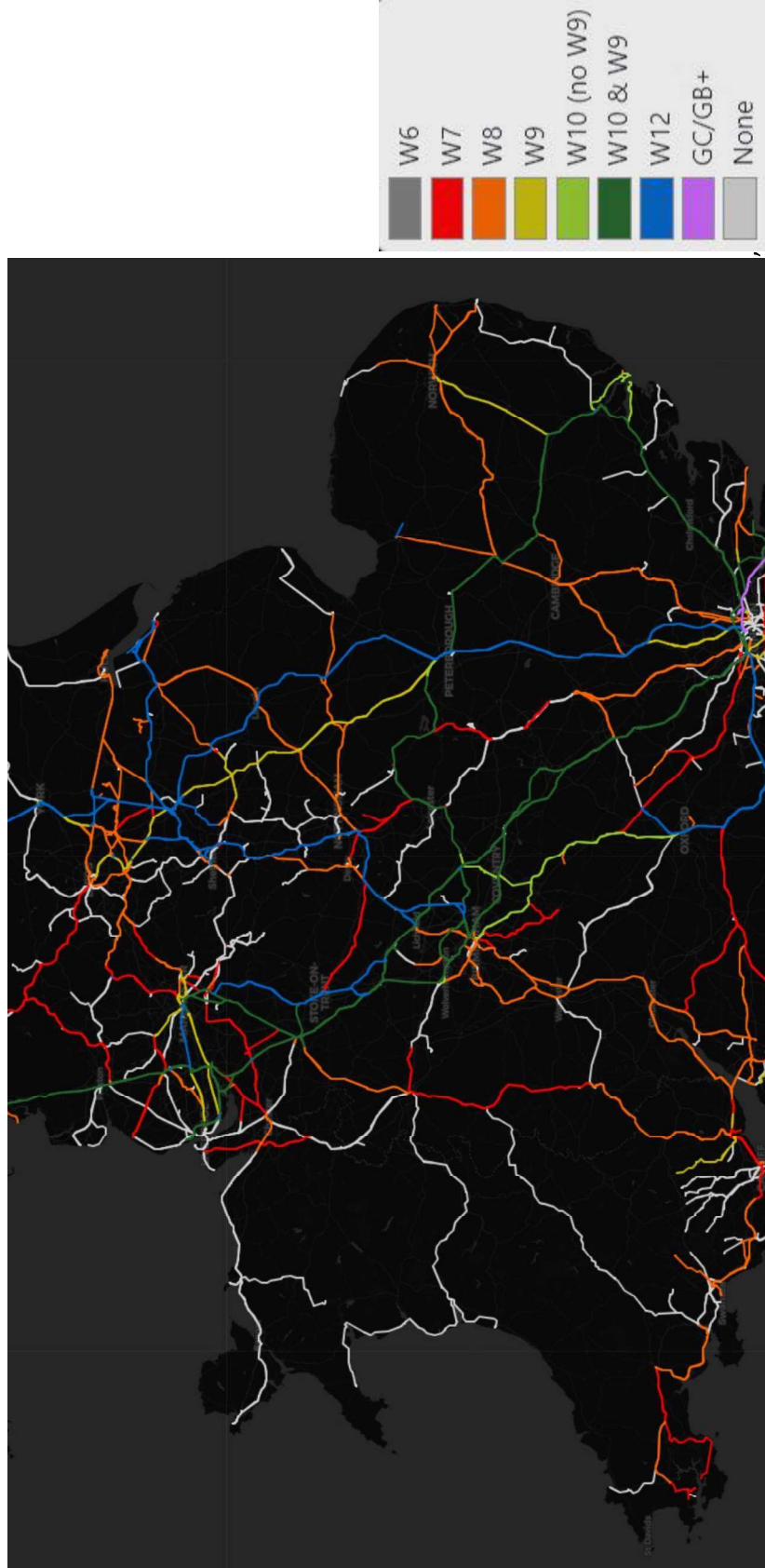
Terminal layout: Option 1



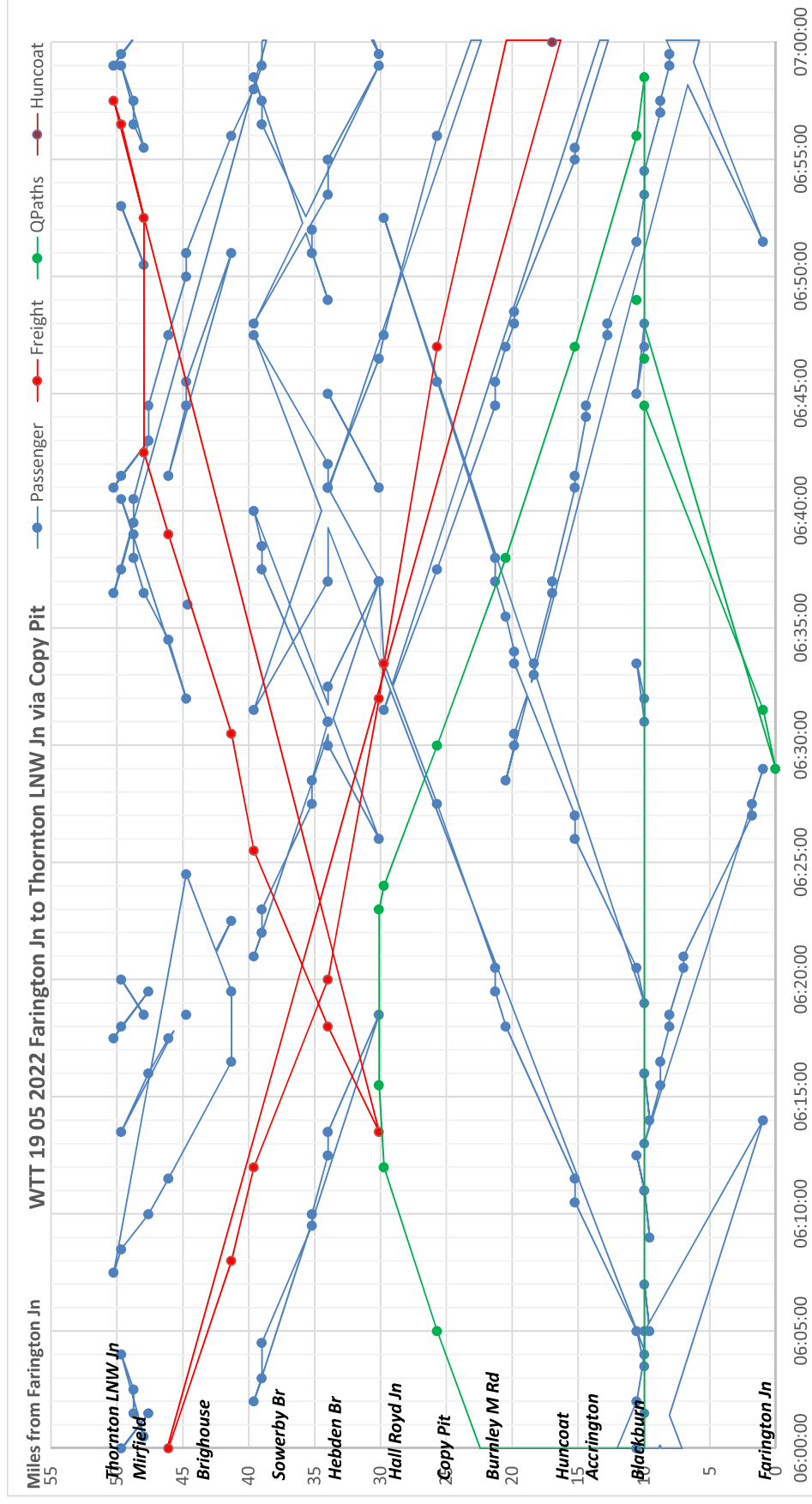
Terminal layout: Option 2



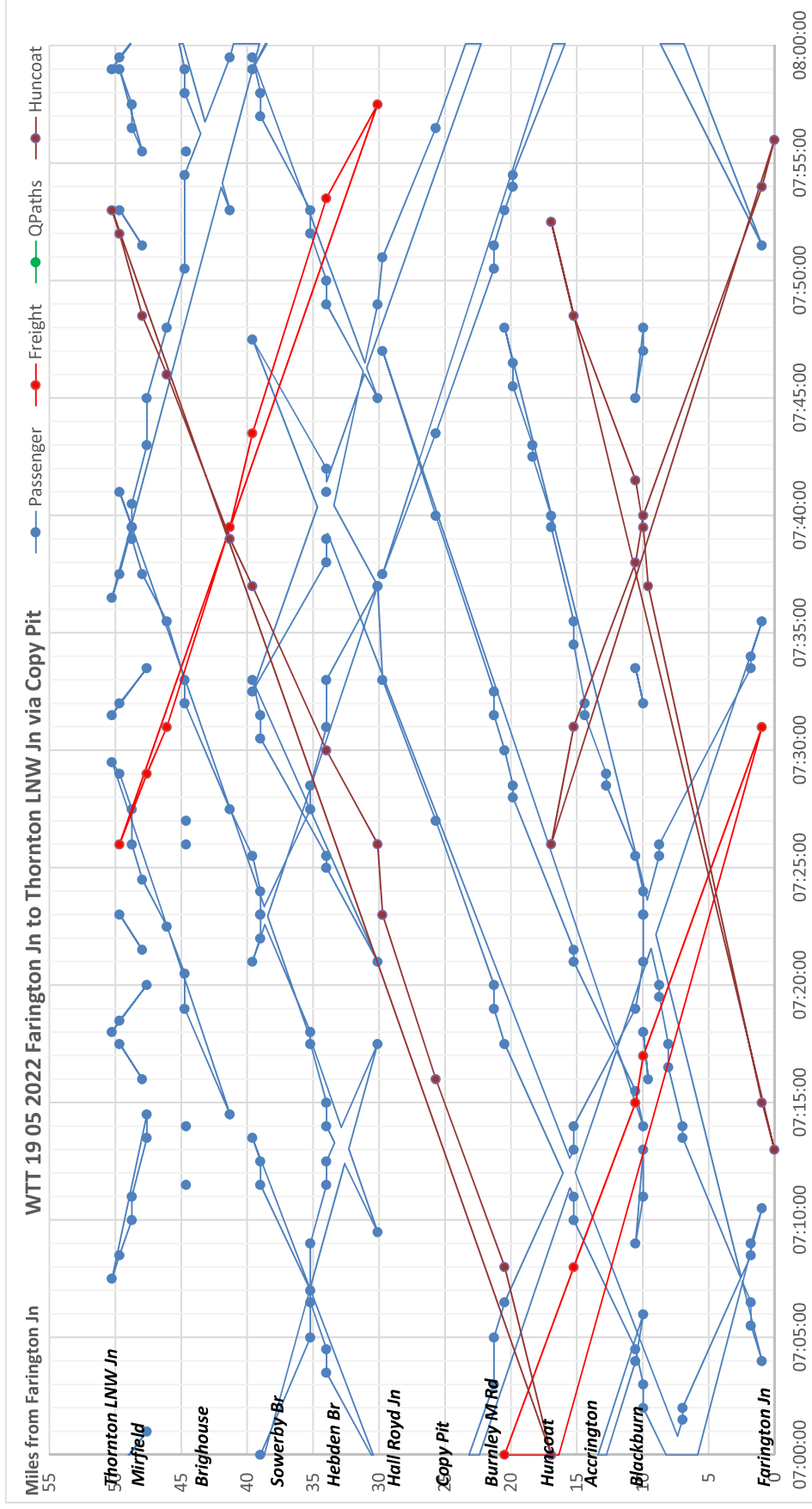
Loading gauges Northern England



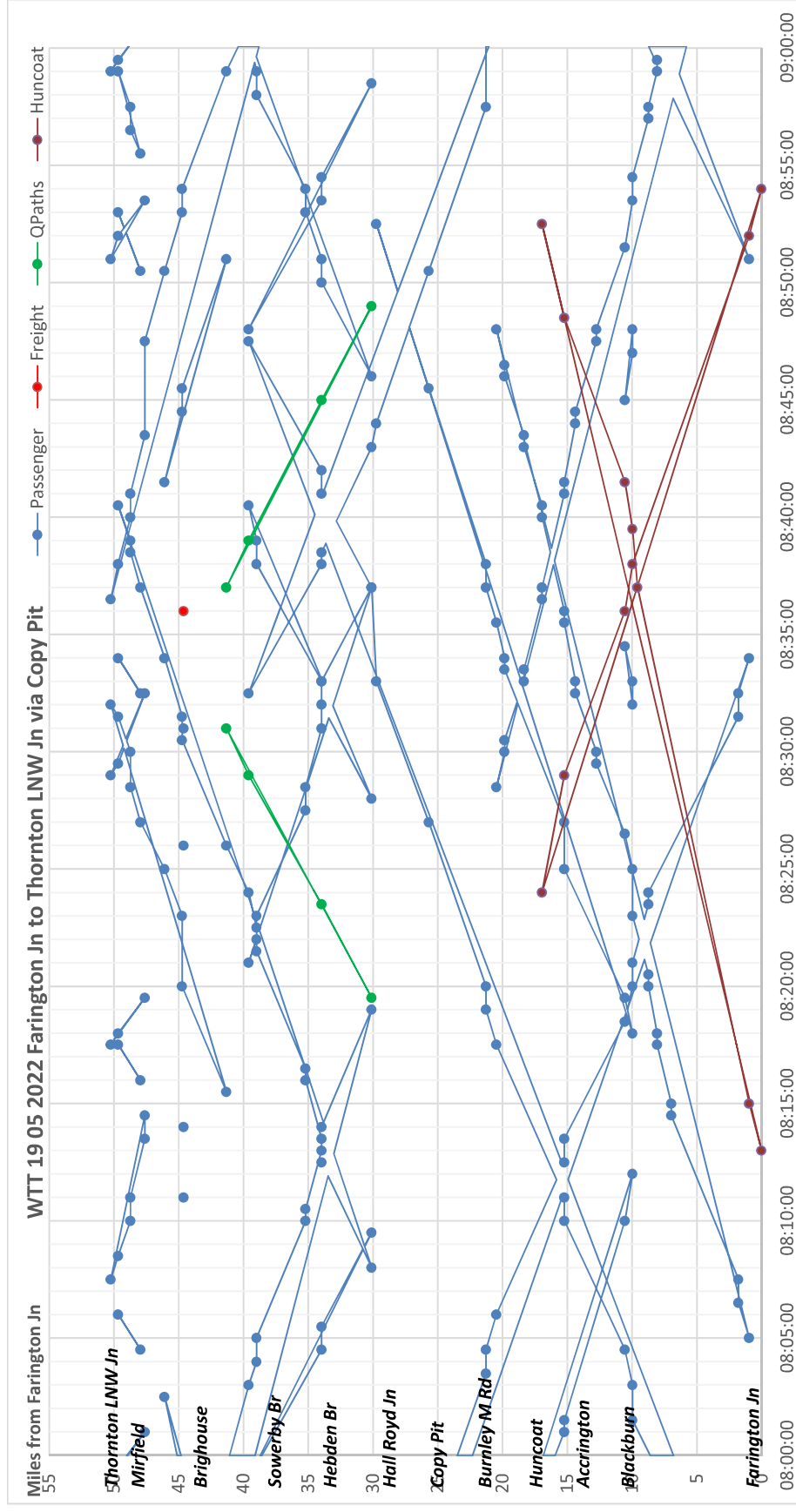
Potential freight paths available between the West Coast Main Line and Thornhill LNW Jn (Healy Mills)



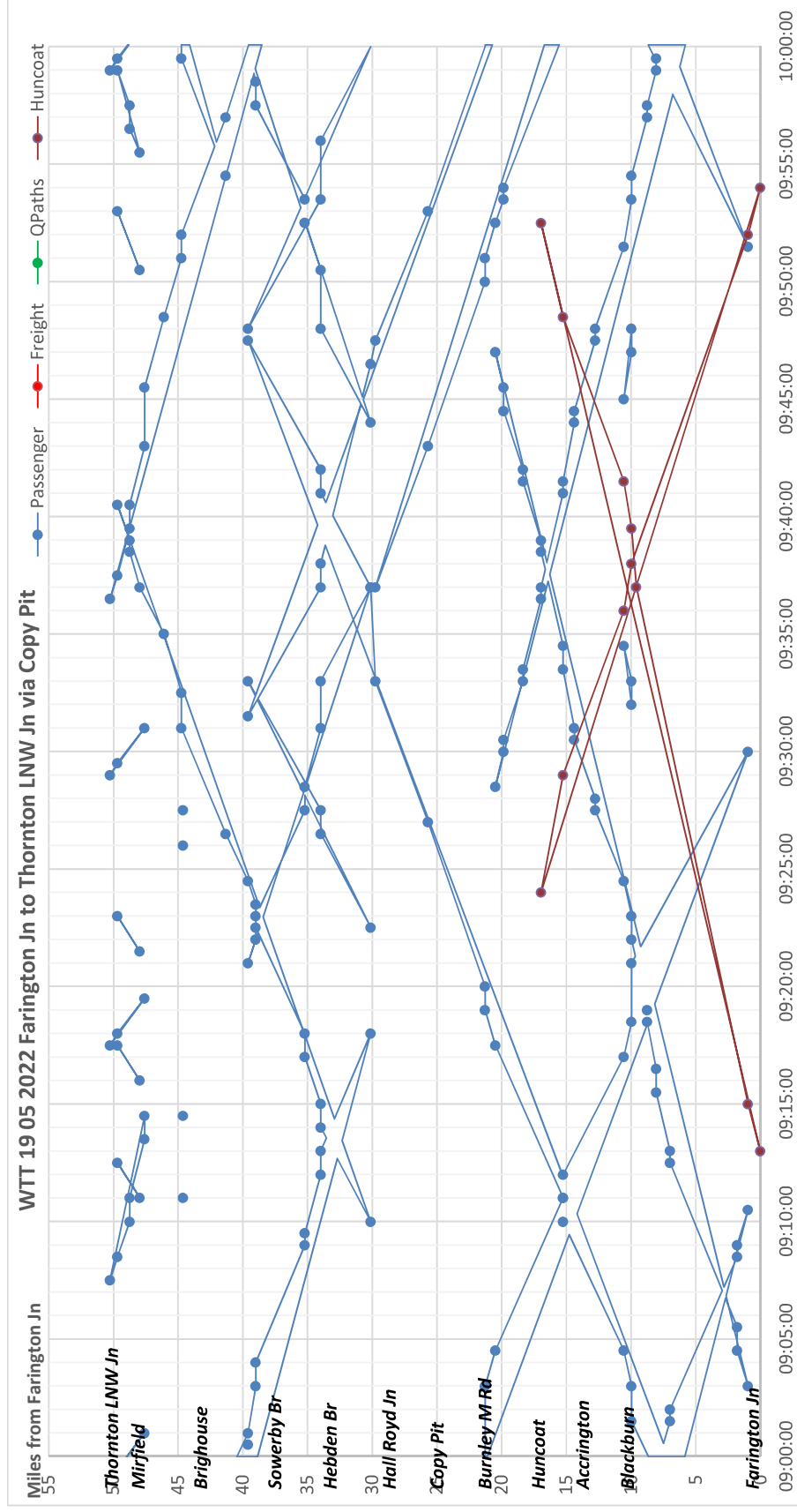
Potential freight paths available between the West Coast Main Line and Thornhill LNW Jn (Healy Mills) continued



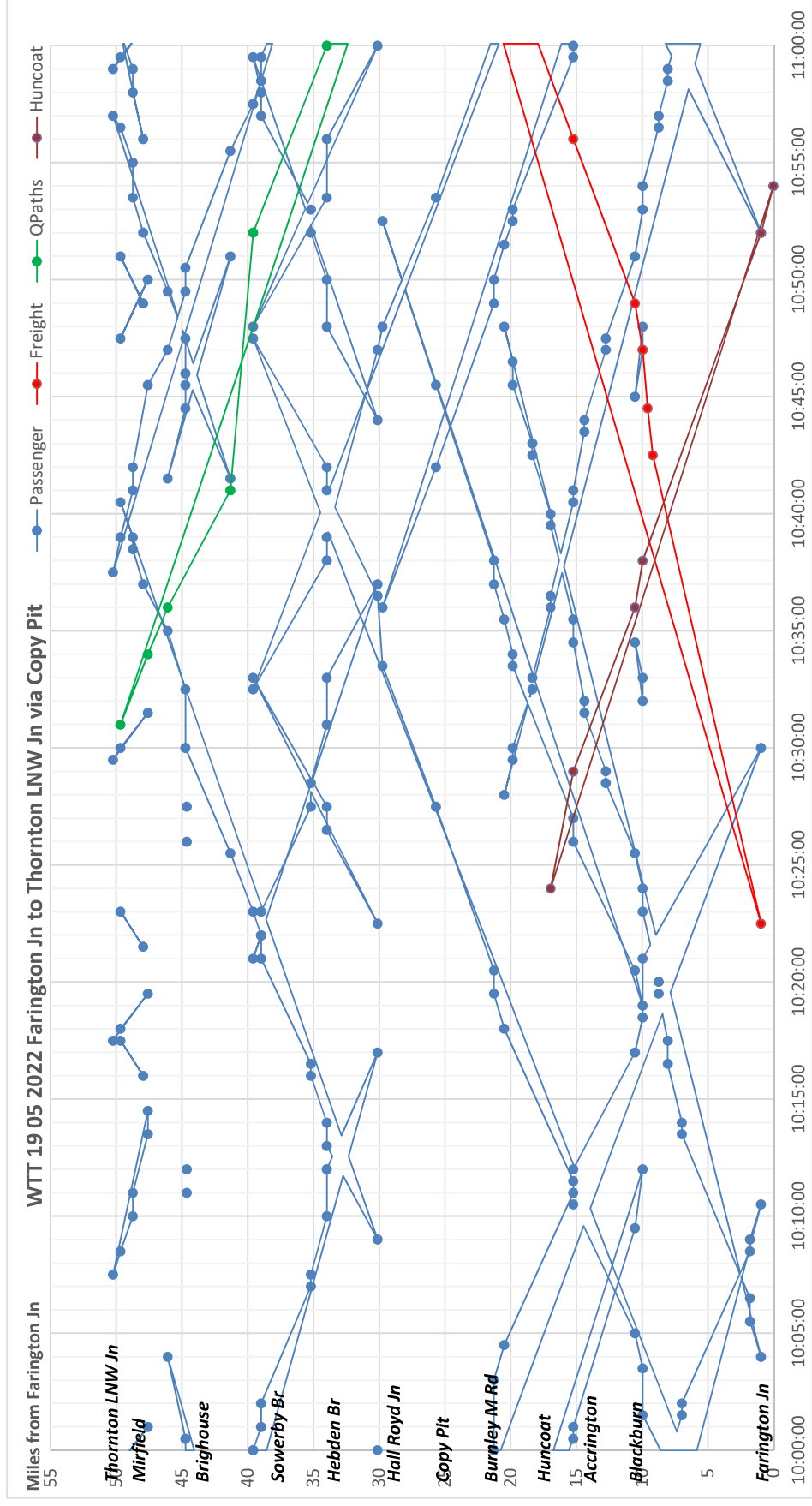
Potential freight paths available between the West Coast Main Line and Thornhill LNW Jn (Healy Mills) continued



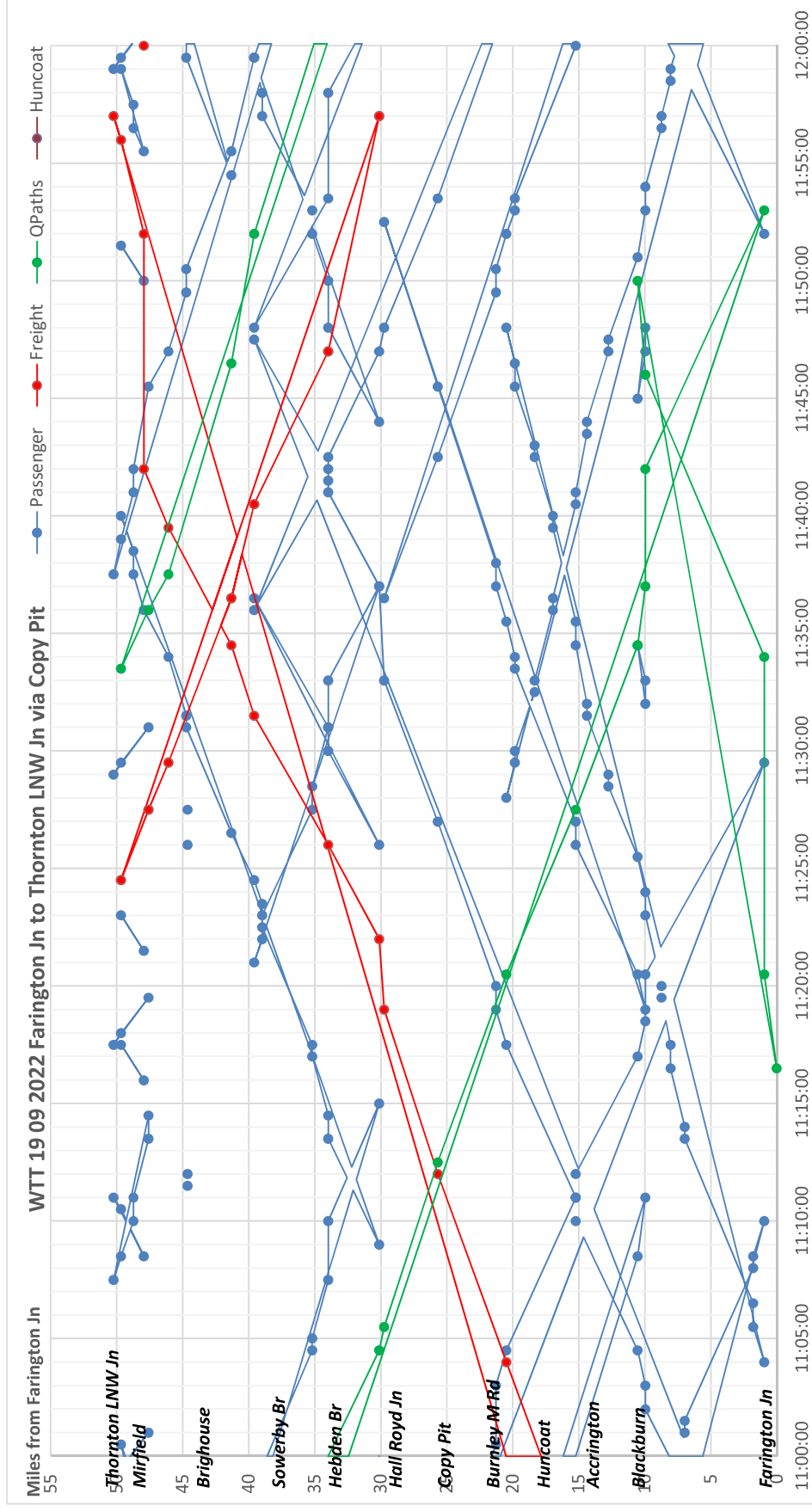
Potential freight paths available between the West Coast Main Line and Thornhill LNW Jn (Healy Mills) continued



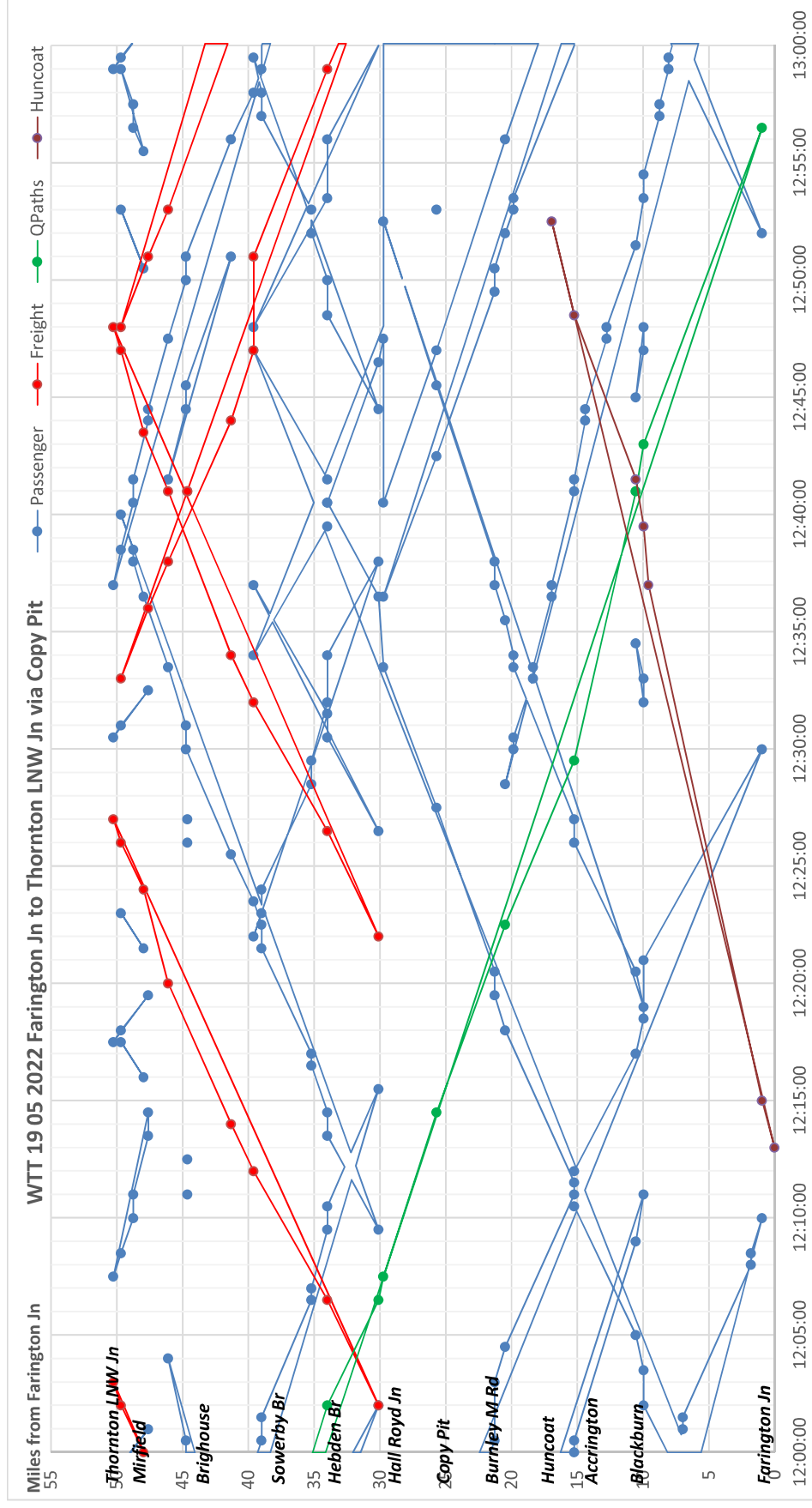
Potential freight paths available between the West Coast Main Line and Thornhill LNW Jn (Healy Mills) continued



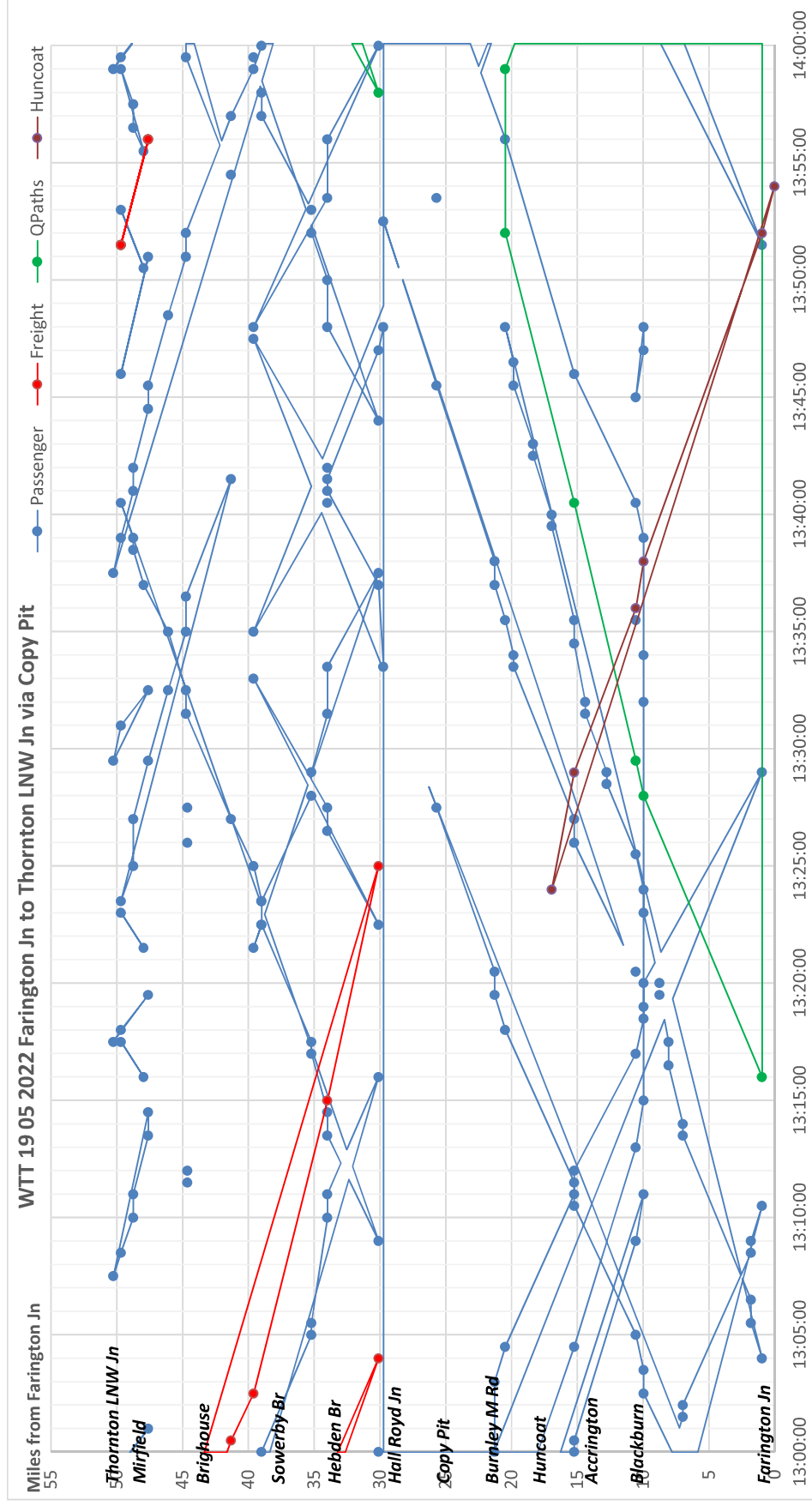
Potential freight paths available between the West Coast Main Line and Thornhill LNW Jn (Healy Mills) continued



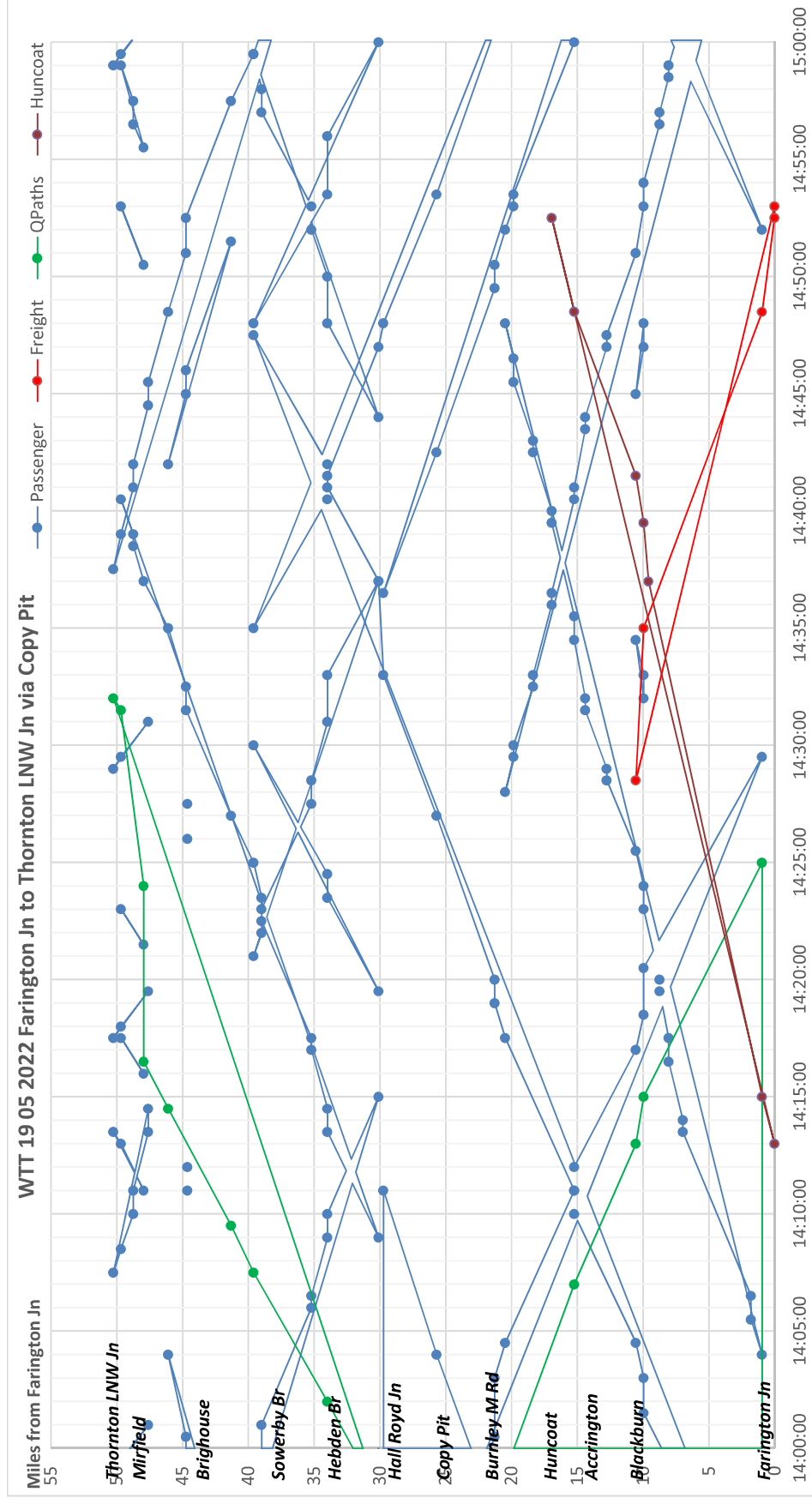
Potential freight paths available between the West Coast Main Line and Thornhill LNW Jn (Healy Mills) continued



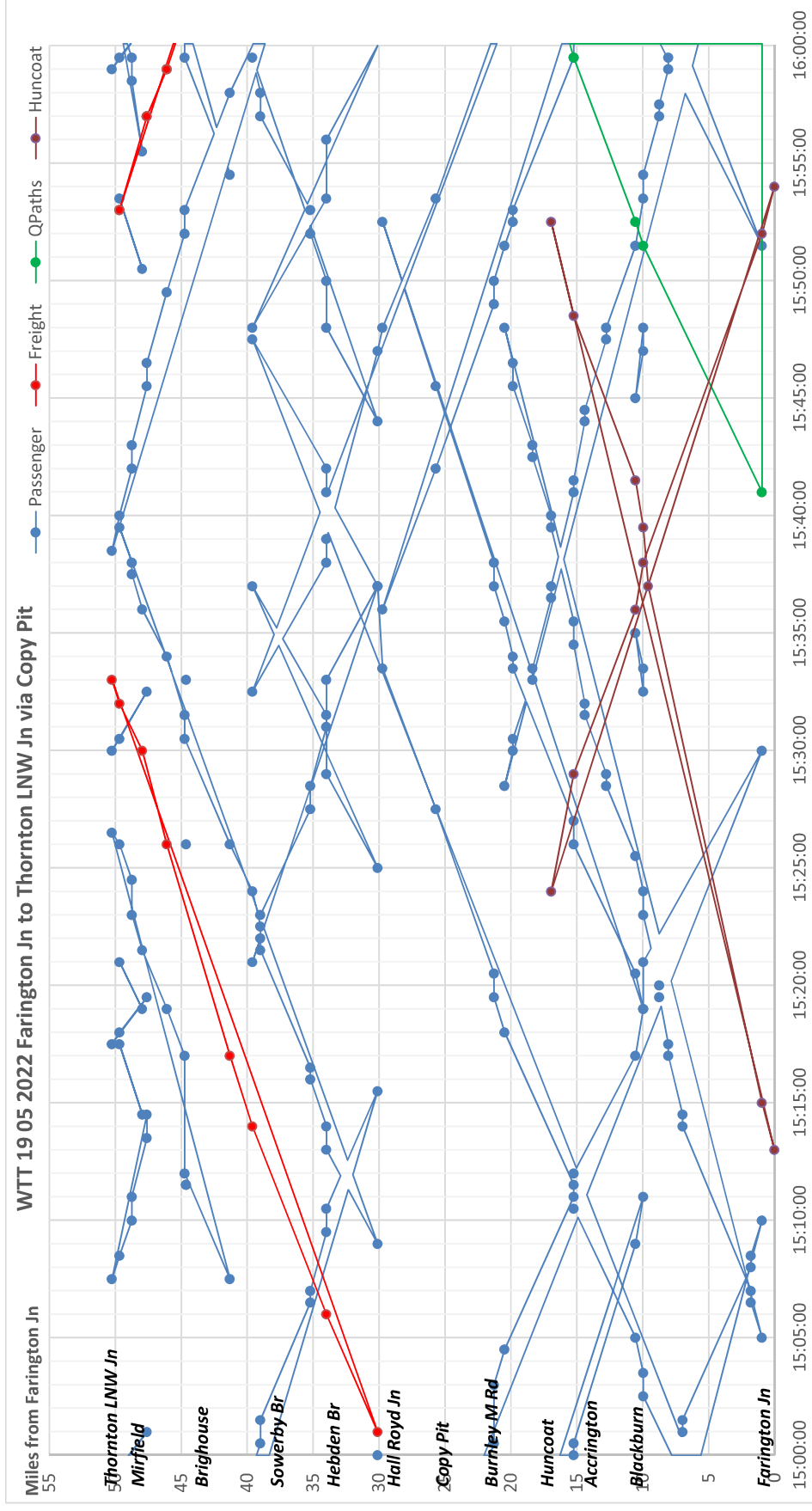
Potential freight paths available between the West Coast Main Line and Thornhill LNW Jn (Healy Mills) continued



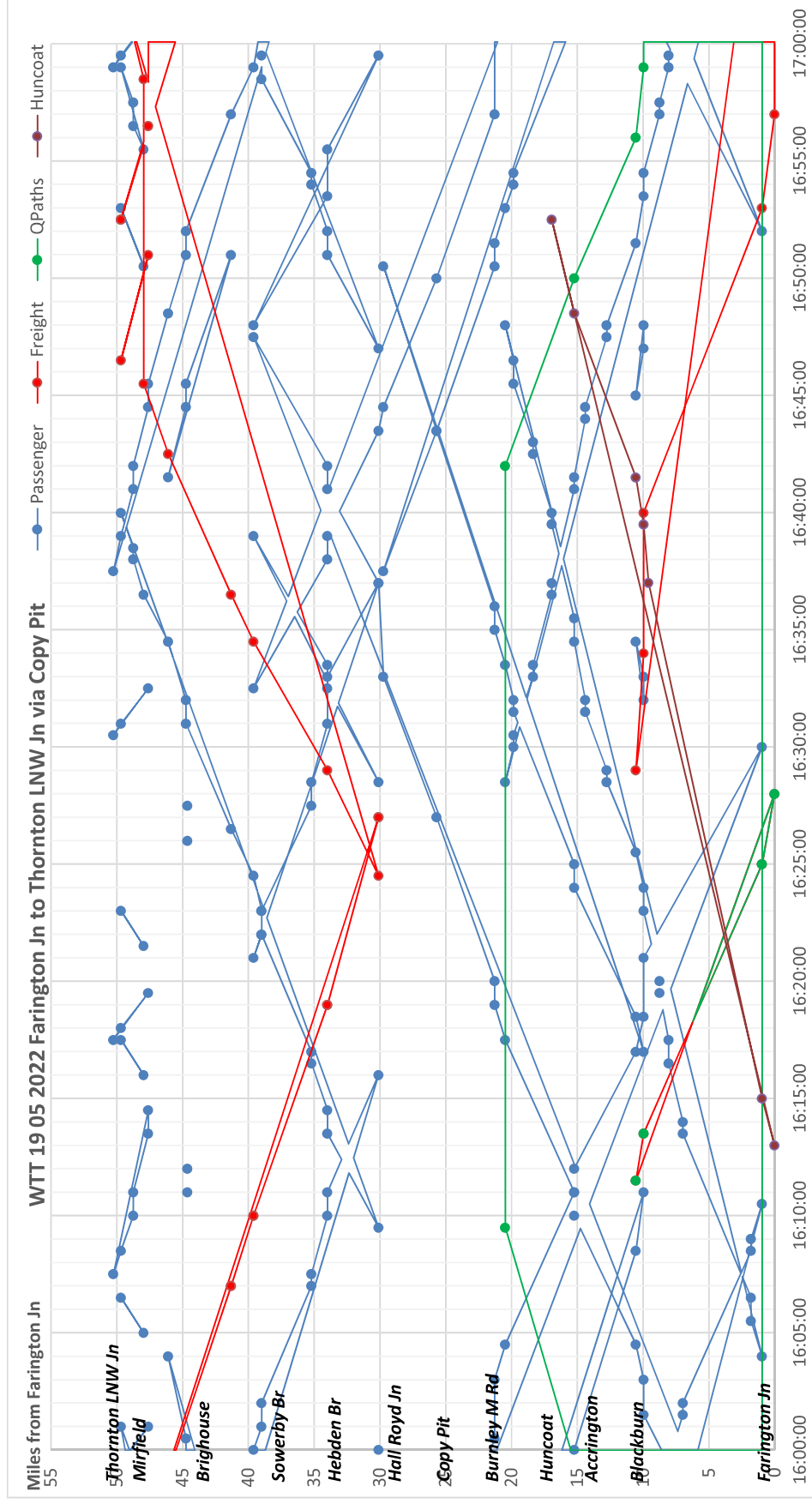
Potential freight paths available between the West Coast Main Line and Thornhill LNW Jn (Healy Mills) continued



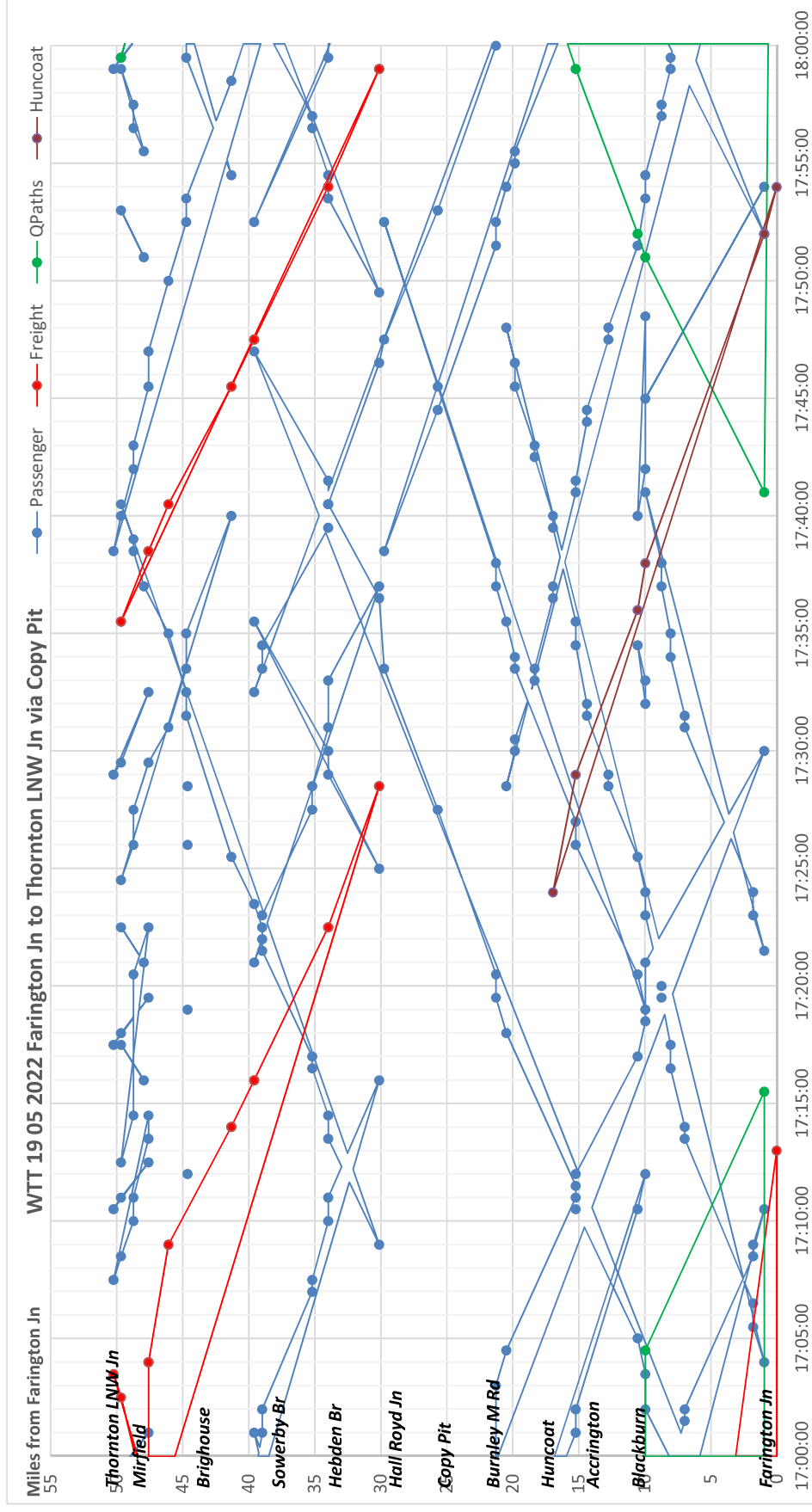
Potential freight paths available between the West Coast Main Line and Thornhill LNW Jn (Healy Mills) continued



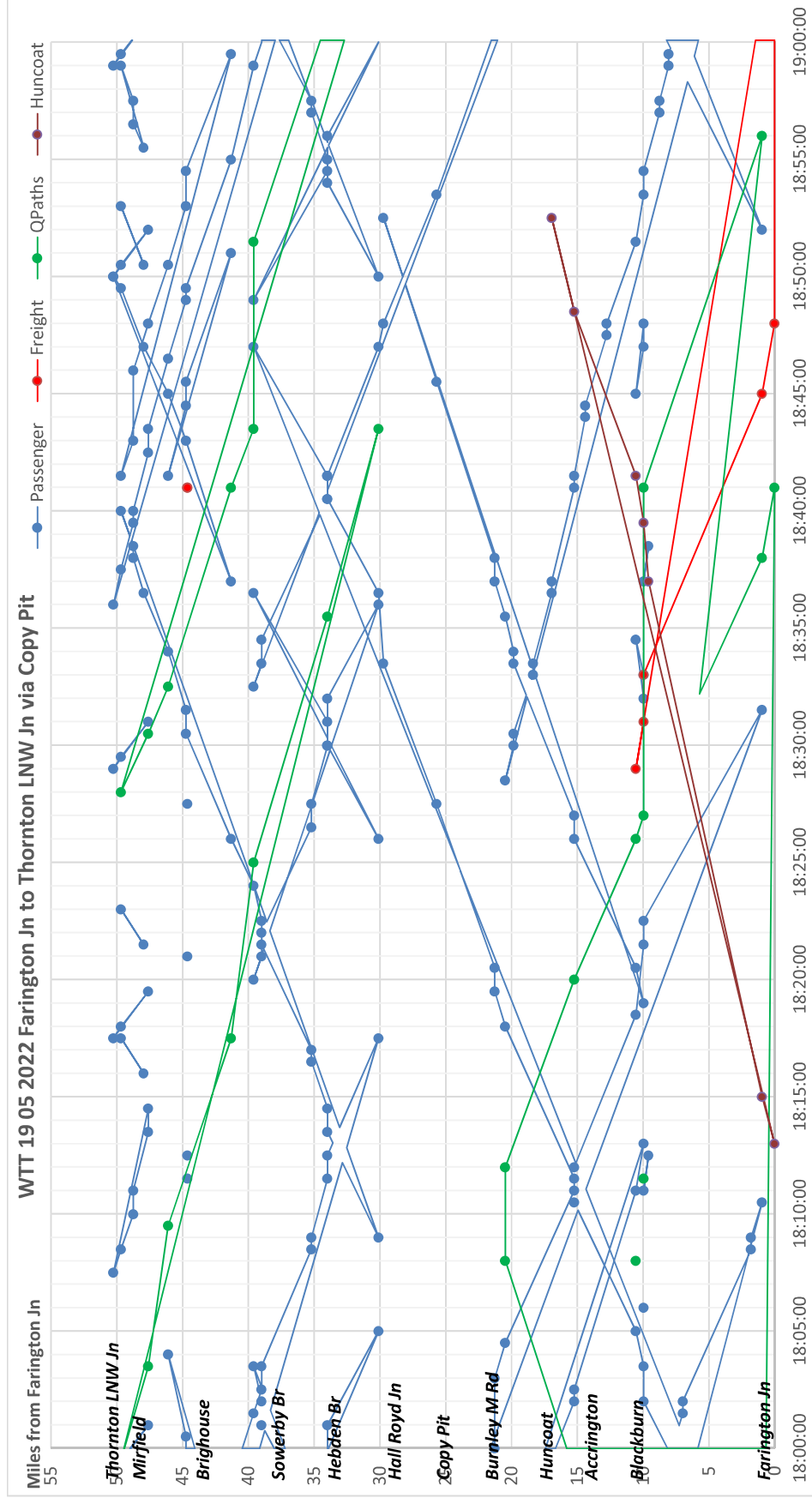
Potential freight paths available between the West Coast Main Line and Thornhill LNW Jn (Healy Mills) continued



Potential freight paths available between the West Coast Main Line and Thornhill LNW Jn (Healy Mills) continued



Potential freight paths available between the West Coast Main Line and Thornhill LNW Jn (Healy Mills) continued



Loading gauge clearances via Huncoat (source DGAUGE)

Route: Transpennine Route via Copy Pit													W7A_1132_4_1_1			
NGD TSID	SurveyID	Reporting Group	Structure Sub Type	Name	ELR	Line Code	Low Miles	Survey Date	Upper Sector	Number of Slices		Clearance Category	Vegetation Comments			
										Sub-standard	Foul					
113077	68189	Overbridges	Arched Overbridge	Moss Lane Also Spans Lh Route Bridge No.83	FHR2	2100	1.480	09/09/10	98.0	1 / 3	0 / 3	Reduced				
136841	68228	Overbridges	Arched Overbridge	Banning Bridge No.9	FHR4	1100	5.920	23/09/10	48.4	2 / 2	0 / 2	Special Reduced				
8603	68808	Overbridges	Arched Overbridge	Side Beet Bridge No.10	FHR5	2100	12.479	06/03/13	-6.5	2 / 2	1 / 2	Foul				
8602	331827	Overbridges	Arched Overbridge	Side Beet Bridge No.10	FHR5	1100	12.484	28/11/16	50.7	2 / 2	0 / 2	Reduced				
97704	331831	Overbridges	Arched Overbridge	East Cabin Bridge No.14	FHR5	1100	13.547	28/11/16	-199.6	1 / 2	1 / 2	Foul				
8292	333204	Overbridges	Arched Overbridge	Cemetery Bridge No.36	FHR5	1100	16.752	23/10/17	68.3	2 / 2	0 / 2	Reduced				
129023	333174	Overbridges	Arched Overbridge	Meadow Top Bridge No.40	FHR5	1100	17.591	23/10/17	77.8	2 / 2	0 / 2	Reduced				
136952	347772	Overbridges	Arched Overbridge	Altham Lane Bridge No.42	FHR5	2100	17.968	22/10/17	79.5	2 / 2	0 / 2	Reduced				
8306	333207	Overbridges	Arched Overbridge	Altham Lane Bridge No.42	FHR5	1100	17.983	23/10/17	-108.0	3 / 3	2 / 3	Foul				
114688	68506	Overbridges	Arched Overbridge	Bentley Green Bridge No.52	FHR5	1100	19.590	05/12/12	62.5	2 / 2	0 / 2	Reduced				
6421	315944	Overbridges	Arched Overbridge	Albion Street Bridge No.50	FHR6	1100	21.726	28/11/16	72.9	3 / 3	0 / 3	Reduced				
6420	342138	Overbridges	Arched Overbridge	Manchester Road Bridge No.48	FHR6	2100	21.886	28/11/16	-134.8	6 / 7	6 / 7	Foul				
114051	315884	Overbridges	Arched Overbridge	Chatham Bridge No.22	FHR6	1100	27.003	28/11/16	-30.3	2 / 2	2 / 2	Foul				
8276	69109	Overbridges	Arched Overbridge	Ferney Lee Lane Bridge No.3	FHR6	2100	29.957	06/03/13	12.9	1 / 2	0 / 2	Special Reduced				
54974	122208	Overbridges	Overbridge	Station Road Horbury Bridge No.219	MVN2	1150	43.818	25/11/10	42.3	3 / 4	0 / 4	Special Reduced				
24252	258170	Overbridges	Intersection	Intersects DOL1 Bridge No.233	MVN2	2150	47.300	12/03/15	78.3	1 / 3	0 / 3	Reduced				
5864	258649	Overbridges	Arched Overbridge	Intersects HUL3 Bridge No.31	NOC	2100	13.977	23/11/10	-49.9	2 / 3	1 / 3	Foul				
106968	342132	Tunnels	Tunnel	Tonneley 23 Miles 6 Chains	FHR6	2100	23.070	28/11/16	14.5	19 / 75	0 / 75	Special Reduced				
6434	339850	Tunnels	Tunnel	Kitson Wood 28 Miles 76 Chains	FHR6	1100	28.955	23/10/17	-5.8	18 / 54	1 / 54	Foul				
6178	294861	Tunnels	Tunnel	Millwood Tunnel 19 Miles 63 Chains	MVN2	1100	19.792	06/10/16	55.0	6 / 60	0 / 60	Reduced				
6171	121971	Tunnels	Tunnel	Millwood Tunnel 19 Miles 63 Chains	MVN2	2100	19.801	26/11/10	19.7	8 / 41	0 / 41	Special Reduced				
6177	121976	Tunnels	Tunnel	Horsfall Tunnel 20 Miles 43 Chains	MVN2	2100	20.540	26/11/10	75.2	1 / 52	0 / 52	Reduced				

8834	122211	Tunnels	Tunnel	Sowerby Bridge Tunnel 27 Miles 60 Chains	MVN2	1100	27.745	07/12/09	-4.0	5 / 121	1 / 121	Foul
8835	332275	Tunnels	Tunnel	Sowerby Bridge Tunnel 27 Miles 60 Chains	MVN2	2100	27.749	05/10/16	49.4	4 / 122	0 / 122	Special Reduced
97946	121561	Tunnels	Tunnel	Eiland Tunnel 31 Miles 24 Chains	MVN2	1100	31.304	07/12/09	-52.9	16 / 77	3 / 77	Foul
9093	122046	Tunnels	Tunnel	Eiland Tunnel 31 Miles 24 Chains	MVN2	2100	31.311	26/11/10	-50.9	10 / 77	6 / 77	Foul
8330	68697	Viaducts	Viaduct	Church Viaduct Bridge No.21	FHR5	2100	14.796	06/03/13	3.5	3 / 23	0 / 23	Foul
252086	68966	Walls	Retaining Wall	Concrete Fence 22 Miles 37 Chains	FHR6	1100	22.469	06/03/13	-100.9	3 / 3	1 / 3	Foul

Source: DGAUGE