

Rotherham Parkway Station - Feasibility Brief

INTRODUCTION

South Yorkshire Passenger Transport Executive (SYPTTE) wishes to procure transportation consultancy support – through Lot 3 of the Engineering Services framework (Heavy Rail), in order to produce an 'Option Selection Report' developed to Network Rail GRIP 3 (Option Selection) stage for a possible new station in Rotherham.

BACKGROUND

The SYPTTE Strategy Department (now the SCR) in partnership with RMBC commissioned JMP to undertake a Rail Connectivity Study in Rotherham with a view to improving economic growth through wider connectivity between Rotherham and larger conurbations on the rail network, copy attached as Appendix 1. The detailed reports with supporting information to the JMP study are available, but omitted from this brief for simplicity. The primary conclusions of the report were :-

- i. In relation to towns of similar size and characteristics Rotherham is significantly underprovided for, in the context of rail connectivity.
- ii. Significant benefits to the town's economy would be gained by providing additional and faster train services to surrounding cities and major towns.
- iii. The constraints of the existing infrastructure (station and access lines) do not provide sufficient scope for an improved service and upgrading costs of this infrastructure prevent a suitable business case from being developed.
- iv. An alternative method of delivering enhanced services to Rotherham would be through the construction of a new station on the Sheffield to Doncaster mainline between Holmes Junction and Aldwarke Junction.
- v. Further business case work is recommended to determine station locations, costs and benefits.

Initial possible station locations include, but are not limited to :-

- i. The site of the old Rotherham Station at Masborough between Midland Road and Coronation Bridge (former station platforms in situ);
- ii. The site of the old RMBC works depot off the B6089 Greasbrough Road (line on embankment);
- iii. The land adjacent to the development site to the west of the A633 accessed off Forge Way (line on embankment access across drainage ditch);
- iv. Land to the east of the Parkgate Shopping area accessed from either Beale Way, the Great Eastern Way roundabout or a new link road proposed to be built off the A6123 Aldwarke Lane (land on relatively flat, but potentially contaminated land).

The JMP study indicates that the new station is likely to attract approximately 250,000 passengers per annum, approximately 100,000 of whom are likely to be extracted from the existing train services through Rotherham Central.

The report indicated that the new station would be served by train services with links to major UK conurbations including an hourly Cross Country service running between Sheffield and Doncaster, the hourly First Trans Pennine service between Manchester (Airport) and Cleethorpes and a Northern Trains service. The new Northern franchise is proposing to move the Nottingham to Leeds fast service through Rotherham subsequent to the report being completed.

Other local factors :-

A633 Parkgate traffic issues

Parallel to the Rail Connectivity Study SYPTTE in partnership with RMBC and bus operators has been reviewing the congestion issues on the A633 corridor between Rotherham Town Centre at St Ann's Roundabout and Parkgate Town Centre. A Paramics model of the highway network has been created to assist with this appraisal. An outcome of this work is the outline design of a new access road to Parkgate Shopping to improve southbound journey times on the A633 in the evening peak and at weekends. Junction modelling using ARCADY, PICADY and LINSIG has been completed and following topographical surveys and ground investigation work and preferred alignment for this new road has been determined, copy attached as Appendix 2.

The site of the proposed new access road crosses land which immediately adjoins one of the possible locations of the proposed new rail station and prior to detail design commencing on the new access road, it is necessary to determine if the road alignment requires amending to accommodate a station access.

Tram Train extension

Work is currently being progressed to deliver a new tram train link between Sheffield, Meadowhall, Rotherham Central station and terminating at Parkgate shopping. Services are expected to be operational in 2017.

Proposed new local housing

A major development site (Bassingthorpe Farm) for potentially in excess of 2000 houses has been identified in RMBC's local plan and the Sheffield City Region Infrastructure Plan for housing. The site is in close proximity to the Sheffield to Doncaster rail line in the vicinity of the proposed station and could add significantly to demand.

Recent highway improvements

The junction of the A630 Centenary Way and Main Street, Rotherham has recently had a major junction remodelling exercise completed with the previously congested roundabout replaced with a signalised cross roads. This has significantly reduced congestion on this junction on this section of the town's inner ring road.

PROPOSAL

The consultant will be required to :-

1. Develop to GRIP3 stage a new station outline design to include, but not limited to the following :-
 - i. Option selection report
 - ii. Cost estimate
 - iii. Risk Register
 - iv. Qualitative Cost Risk Assessment
 - v. Qualitative Schedule Risk Assessment
 - vi. Value for Money Option Selection
 - vii. Value for Money Lessons Learnt
 - viii. Value for Money Statement
 - ix. Prepare a Safety Verification Categorisation Application
 - x. Input into the Project Hazard Log
 - xi. Undertake an environmental appraisal

2. Taking into consideration the existing highway network constraints for the preferred station option developed, design any new access road to end of Stage G2.3 Outline Proposals Stage of the ACE Schedule of Services Part G(d) Civil and Structural Engineering Lead Consultant 2009 Edition the station access and ancillary components. This will include but not limited to the following :-
 - i. Liaison with RMBC Highways and Engineering Department
 - ii. Liaison with the relevant landowners, including Network Rail
 - iii. Assessment of the highway constraints in the area to determine the best access point(s) to the station
 - iv. Utilisation of the existing models or develop other models to highlight and assist in resolving any impacts the proposed station may have in the surrounding highway network.

3. For the overall project provide Principal Designer services under CDM 2015 for :-
 - i. Provision of a safety risk log
 - ii. Assisting in developing the Project Safety Strategy
 - iii. Obtaining and reviewing relevant Health and Safety documentation / information (existing Health and Safety files / plans)
 - iv. Assisting in developing the CDM plan

4. Incorporate any items identified following discussions with Sheffield City Region, Network Rail and train operators.

DELIVERABLES AND TIMESCALES

The station location will be driven by a number of key factors and the following need to be considered :-

- i. Passenger numbers to inform station size and level of facilities eg car park, seating, ticket office (or otherwise)
- ii. Rail network constraints – timetabling and signal locations;
- iii. Physical / Engineering constraints – space to provide a two platform station to accommodate trains of a maximum length of 250m – equivalent to a 2 x 5 coach Cross Country Voyager train set and associated facilities;
- iv. Public transport accessibility including proximity and frequency to local bus services and/ or tram train – ie linkages between Rotherham Central station and the proposed station;
- v. Existing local Highway network constraints and associated accessibility issues;
- vi. Regeneration opportunities.
- vii. Operational costs and environmental considerations.

It is envisaged the commission will comprise 2 stages :-

1. an initial appraisal and recommendation of station location

The option selection report should, as a minimum, give consideration to items i. to vii. of the above and make a recommendation on the location for the station which provides the best value for money in terms of costs, risks, improved accessibility, increased passenger numbers and regeneration.

2. a more detailed presentation of the preferred location with a more defined station layout with associated infrastructure, costs and risks to delivery.

For the recommended station location, design developed to GRIP3 stage, the following outputs are required to inform the business case for the station at the preferred location:-

- i. Confirmation of projected passenger numbers;
- ii. Confirmation of potential train stopping patterns, without timetable conflicts and costs associated with adjustments to the rail network – signalling etc;
- iii. Proposed station location plans indicating approximate layouts and constraints with associated costs including, but not limited to platform and rail crossing (footbridge) locations, indicative building / shelter positions, car park and drop off / access point locations, operating costs and environmental issues;

- iv. Details of public transport connectivity linking the proposed station to Rotherham Town centre and costed recommendations of providing an appropriate level of service bus and tram/train as appropriate;
- v. Assessment of local highway network highlighting any significant highway issues and barriers to delivery ;

The station and rail infrastructure (station car park etc) design is to comply with rail industry standards including, but not limited to the :-

Station Design Principals for Network Rail – BLDG–SP80-002, and

Design Standards for Accessible Railway Stations Version 04 Valid from 20 March 2015

Hall / Green Better Rail Stations report 2009

The documentation provided from this will be required to be suitable for a submission to funding bids requiring a level of detail to the end of GRIP3 stage.

Note at this stage detailed designs of station buildings, footbridges and other facilities are not required, merely indicative numbers, sizes, locations and footprints appropriate to the projected passenger numbers.

Station access road / junction improvements must comply with the relevant highway standards and it should be demonstrated that the existing highway network, and junctions can cope with the projected generated traffic and / or costed improvements identified and developed to end of Stage G2.3 of the ACE Schedule of Services to allow a full costed business case submission when seeking funding for the station and or highway infrastructure independently.

One station location may be suited to a tram train extension to provide public transport access / connectivity. In this instance an indicative tram alignment relative to the proposed highway infrastructure and station interchange with high level cost estimates with risks will be required to be included in the overall station scheme proposal.

The Consultant will be required to attend inception and progress meetings and any other meetings necessary.

All documents should be provided in Word and PDF formats with electronic versions of any models, drawings and documents in editable format as required to progress the scheme further.

It is proposed that the work will be commissioned in February 2016 and all final documentation will be required for submission before May 2016.