

The Tayside Metro

The Tayside Metro arises out of work revising the article HS Scottish Routes and Service Plans (HS13 and HS14). It was initially suggested by the need to provide connections from St. Andrews to Edinburgh, Glasgow and Aberdeen, and vice versa, by cross-platform connection at Leuchars Junction to and from Edinburgh, and by connections at Dundee Tay Bridge station to and from Glasgow and Aberdeen.

An immediate problem encountered is that there is no room at all available for it at the existing Tay Bridge station. The proposal is therefore for on-street running in the immediate vicinity of the station, but connected to the existing rail infrastructure to the east, west and south, including, very obviously, the Tay Bridge itself.

Various services other than to St. Andrews suggest themselves, using both existing and former rail infrastructure, and also some on-street running (other than in the immediate station area).

The initial services are:

- 2tph Monikie – Wellbank Parkway – Kingennie – Grange Parkway – Barnhill – Broughty Ferry – West Ferry – Craigie and Stannergate – Dundee East – Town Hall – Dundee Tay Bridge – Esplanade – Wormit West – St. Fort – Leuchars Junction – Guard Bridge – St. Andrews
- 2tph Monikie – Wellbank Parkway – Kingennie – Grange Parkway – Barnhill – Broughty Ferry – West Ferry – Craigie and Stannergate – Dundee East – Town Hall – Dundee Tay Bridge – Esplanade – Wormit West – St. Fort – Leuchars Junction – Dairsie – Cupar – Springfield – Ladybank
- 4tph Arbroath – Carnoustie – Golf St. – Barry Links – Monifieth – Balmossie – Broughty Ferry – West Ferry – Craigie and Stannergate – Dundee East – Town Hall – Dundee Tay Bridge – Magdalen Green – Dundee Airport – Ninewells – Invergowrie – Kingoodie Parkway
- 4tph Bridgefoot / Strathmartine – Brackens – Balgowan Avenue – West School Rd. – Kingsway Retail Park – Harefield Rd. – Loon's Road – Tullideph Rd. – Dudhope Terrace – Dudhope Castle – University – Westgate – Town Hall – Dundee Tay Bridge – Esplanade – Wormit East – Newport-on-Tay West – Newport-on-Tay East – Tayport Harbour – Tayport East Common – Tayport Lundin Bridge

The Metro has on-street running between Dundee East (NO419308) and NO402299, just before Tay Bridge station. Thereafter it follows the route from the former Dundee West station as far as Dundee Central Junction (NO396295) where the present Tay Bridge and Perth lines diverge, and makes connections with both lines. This section is c.1½ miles. Other on-street running depends on the routes within the City of Dundee itself. The present proposal gives suggestions, but more work is required here. But the above services form a self-contained sub-set, which is tightly integrated with HS14's services, as now described.

Representative Hourly Cross-Platform Interchange Pattern at Leuchars Junction:

00H Aberdeen – Edinburgh via Dundee

RS St. Andrews – Monikie

07H Edinburgh – Aberdeen via Dundee

RS Monikie – St. Andrews

15RS Ladybank – Monikie

(no connection)

23RS Monikie – Ladybank

(no connection)

– repeating at 30, 37, 45 and 53 minutes past. The provides a service Edinburgh – St. Andrews and vice versa, with the single, cross-platform (in both directions) change at Leuchars,

Representative Hourly Cross-Platform Interchange Pattern at Ladybank

00H Perth – Edinburgh

RS Monikie – Ladybank

05H Edinburgh – Perth (not cross-platform)

RS Ladybank – Monikie

– repeating at 30 and 35 minutes past. Thus the metro service, arriving first at Ladybank, connects cross-platform into the Perth – Edinburgh service, which arrives and departs immediately after. It then waits at Ladybank to be connected into, (not cross-platform,) by the Edinburgh – Perth service, which it immediately follows in departure back to Dundee. (The services have to be this way round because of the single-track section between Ladybank and Perth.) The main purpose of the Ladybank metro service is to provide a decent service for Cupar, with good connections north and south.

Representative Hourly Cross-Platform Interchange Pattern at Dundee Tay Bridge (HS and R/RS terminating services at platform level, metro at street level):

00H Glasgow – Aberdeen via Dundee

R Hawick – Dundee via Dunfermline

RS St. Andrews – Monikie

15H Edinburgh – Aberdeen via Dundee

RS Glasgow Queen St. – Dundee via Perth

RS Ladybank – Monikie

– repeating at 30 and 45 minutes past.

Representative Hourly Cross-Platform Interchange Pattern at Arbroath (**not** cross-platform westbound):

00H Edinburgh – Aberdeen via Dundee

RS Kingoodie Parkway – Arbroath

15H Glasgow – Aberdeen via Dundee

RS Kingoodie Parkway – Arbroath

– repeating at 30 and 45 minutes past. This gives all the stations between Dundee and Arbroath connections to and from Montrose, Laurencekirk, Stonehaven and Aberdeen, with the single change.

Service plan 5 overall imposes the following loadings on HS13:

• Newcraighall HS	– Gyle Junction	18tph
• Newcraighall	– Edinburgh Waverley	16tph
• Edinburgh Waverley	– Gyle Junction	14tph
• Gyle Junction	– Kirkliston Junction	32tph
• Kirkliston Junction	– Kinnaird Junction	14tph
• Kinnaird Junction	– Bankhead Junction	8tph
• Bankhead Junction	– Robroyston Junction	16tph
• Robroyston Junction	– Glasgow Queen St.	4tph
• Robroyston Junction	– Saltmarket Junction	12tph
• Saltmarket Junction	– Glasgow St. Enoch	8tph
• Saltmarket Junction	– Clyde Junction	4tph
• Glasgow St. Enoch	– Clyde Junction	8tph
• Clyde Junction	– Glasgow Airport Junction	12tph
• Glasgow Airport Junction	– Dalmuir	8tph
• Glasgow Airport Junction	– Kilmarnock	4tph
• Kilmarnock [Mk2]	– Ayr	4tph

– and the following loadings on HS14:

• Kinnaird Junction [Mk1A]	– Alloa Junction	6tph
• Alloa Junction [Mk1A]	– Bannockburn Junction	10tph
• Bankhead Junction [Mk1A and Mk2]	– Bannockburn Junction	8tph
• Bannockburn Junction [Mk1A]	– Stirling	18tph
• Stirling [Mk1A]	– Dunblane Junction (site of)	16tph
• Kinnaird Junction [Mk2]	– Bannockburn Junction	6tph
• Bannockburn Junction [Mk2]	– Dunblane Junction	14tph
• Dunblane Junction [Mk1A and Mk2]	– Forgandenny Junction	16tph
• Forgandenny Junction [Mk1A]	– Hilton Junction	16tph
• Hilton Junction [Mk1A]	– Perth	20tph
• Forgandenny Junction [Mk2]	– Perth	14tph
• Forgandenny Junction [Mk2]	– Hilton Junction	2tph

• Hilton Junction	[Mk2]	– Perth	6tph
• Perth		– Stanley junction	12tph
• Stanley junction		– Craigo Junction	8tph
• Kirkliston Junction		– Inverkeithing	18tph
• Inverkeithing (via Kirkcaldy)		– Thornton South Junction	8tph
• Thornton South Junction		– Thornton North Junction	4tph
• Thornton North Junction		– Ladybank	8tph
• Ladybank		– Leuchars Junction	6tph
• Leuchars Junction		– Dundee Tay Bridge station	8tph
• Perth		– Dundee Tay Bridge station	4tph
• Dundee Tay Bridge station		– Craigo Junction	4tph
• Craigo Junction		– Aberdeen Union station	12tph

It is recognised that the section between Gyle Junction and Kirkliston Junction will have to be quadruple track, paired by direction. In ordinary service, the two centre tracks would be HS (including CCs) and the outer two for classic (RM) services, but crossovers would be provided at both junctions, and possible each side of the airport station also, for operational flexibility. All platforms at the station would of course be variable.

The following page gives the key to the various maps of the Tayside Metro, followed by the maps themselves.















