

SHENFIELD IECC
(LIVERPOOL STREET IECC C)

**ECS SIGNALLING ITEMS
SPECIFICATION**

A02/LIV/IECC/ECS/001

ISSUE: ALQ1

Controlled Copy No.

ISSUE and AMENDMENT RECORD

AMM	Prod	Chk	Date	Details of change	Pages affected
AGJ1	ES	AS	28/04/09	Initial issue of document.	All
AGJ2	ES	AS	28/05/09	Removal of LOS S5151 from signalling items tables.	9, 14, 17, 22.
ALQ1	DL	RJB	19/03/10	Amendments to S-Class signalling items in Inter-Unit Links and SMART Sections at the request of Network Rail, East Anglia	8, 9, 10, 13, 14, 15, 16, 17, 18, 19, 21, 22, 23

DELTARAIL GROUP LTD	Name	Signature	Date
Produced			
Mentored			
Checked			

Contractors Responsible Engineer			
----------------------------------	--	--	--

This document has been accepted, on behalf of Network Rail by:

Print name	Signature	Date

Version: ALQ1	Drg No: A02/LIV/IECC/ECS/001	SHENFIELD IECC (LIVERPOOL ST IECC C) ECS SIGNALLING ITEMS SPECIFICATION
---------------	------------------------------	--

Contents

1	INTRODUCTION	4
1.1	Document Overview	4
1.2	Abbreviations	4
1.3	Related Documents	4
2	ECS OVERVIEW	5
2.1	All Berths known to the ECS	5
2.2	Berths from Stratford IECC	6
2.3	Berths from Colchester MCS	7
3	ECS INTER-UNIT LINK (1)	8
3.1	Overview	8
3.2	Link Characteristics	8
3.3	Berths	8
3.4	Signalling items	8
3.5	Link Status	11
4	ECS LINK TO SMART PC LINK (1)	12
4.1	Overview	12
4.2	Link Characteristics	12
4.3	Berths	12
4.4	Signalling Items	13
4.5	Link Status	15
5	ECS INTER-UNIT LINK (2)	16
5.1	Overview	16
5.2	Link Characteristics	16
5.3	Berths	16
5.4	Signalling items	16
5.5	Link Status	19
6	ECS LINK TO SMART PC LINK 2	20
6.1	Overview	20
6.2	Link Characteristics	20
6.3	Berths	20
6.4	Signalling Items	21
6.5	Link Status	24

Version: ALQ1	Drg No: A02/LIV/IECC/ECS/001	SHENFIELD IECC (LIVERPOOL ST IECC C) ECS SIGNALLING ITEMS SPECIFICATION
---------------	------------------------------	--

1 INTRODUCTION

1.1 Document Overview

This document defines the ECS Signalling Items data requirements for Shenfield IECC. The following information is supplied for each ECS to SMART PC link and ECS Inter-Unit Link:

- Link Characteristics
- Signalling items transmitted and received
- Subsystems which will be informed of changes in remote link status

1.2 Abbreviations

ARS Automatic Routesetting Subsystem
ECS External Communication Subsystem
IDPM IECC Data Preparation Manual
IECC Integrated Electronic Control Centre
TD Train Descriptor

1.3 Related Documents

IECC Application Manuals.
IDPM 1302 External Communications

NR/SP/516/10040 Issue 8
SAO-IEC-HD-56 Issue 4.1

Version: ALQ1	Drg No: A02/LIV/IECC/ECS/001	SHENFIELD IECC (LIVERPOOL ST IECC C) ECS SIGNALLING ITEMS SPECIFICATION
---------------	------------------------------	--

2 ECS OVERVIEW

2.1 All Berths known to the ECS

The following is a complete list of all berths known to the ECS: -

/IECC Control Area

0451	0453	0455	0457	0459	0461	0463	0465
0467	0469	0471	0473	0475	0477	0478	0479
0480	0481	0482	0483	0484	0485	0486	0487
0488	0489	0490	0491	0492	0493	0494	0495
0496	0497	0498	0499	0500	0501	0502	0503
0504	0505	0506	0507	0508	0509	0510	0511
0512	0513	0514	0515	0516	0517	0518	0519
0521	0522	0523	0524	0525	0527	0528	0529
0530	0533	0534	0535	0536	0537	0538	0539
0540	0541	0542	0543	0544	0545	0547	0549
0550	0551	0552	0553	0554	0555	0556	0557
0558	0559	0560	0562	0564	0566	0568	0569
0570	0571	0572	0573	0574	0575	0576	0577
0578	0579	0580	0581	0582	0583	0584	0585
0586	0587	0588	0589	0591	0592	0593	0594
0595	0596	0597	0599	0602	0603	0604	0605
0606	0607	0608	0609	0610	0611	0612	0613
0614	0615	0616	0618	0619	0620	0621	0622
0623	0624	0625	0626	0627	0628	0629	0630
0631	0634	0636	0638	0639	0640	0642	0644
0646	0648	0649	0650	0651	0652	0654	0658
0660	0662	0664	0666	0669	0671	0675	0677
0679	0683	0685	0687	0691	0692	0693	0694
0695	0696	0697	0701	0703	0705	0708	0710
0711	0712	0713	0714	0715	0716	0717	0718
0722	0723	0724	0725	0726	0727	0729	0730
0731	0732	0733	0734	0735	0736	0737	0739
0740	0741	0742	0747	0751	0753	0755	0756
0758	0759	0760	0761	0762	0763	0764	0765
0766	0767	0769	0770	0771	0772	0773	0778
0779	0781	0782	0784	0785	0786	0787	0788
0789	0790	0791	0792	0793	0794	0796	0799
0800	0801	0803	0804	0805	0806	0807	0810
0812	0814	0815	0816	0817	0818	0819	0820
0822	0823	0824	0825	0826	0827	0828	0829
0830	0832	0834	0836	0837	0844	0846	0848
0850	0854	0856	0858	0860	0862	0864	0868
0872	0874	0876	0878	0882	0884	0896	0898
5132	5134	5137	5139	5146	5157	5165	5167

Version: ALQ1	Drg No: A02/LIV/IECC/ECS/001	SHENFIELD IECC (LIVERPOOL ST IECC C) ECS SIGNALLING ITEMS SPECIFICATION
---------------	------------------------------	--

5170	5185	5186	5188	5189	5193	5202	5203
5204	A136	A138	A668	A670	A672	A674	B136
B138	B668	B670	B672	B674	BURN	C668	C670
C672	C674	CRES	DAPP	DB01	DB02	DB03	DEPO
DMAP	DMLS	DNSG	DNSN	DNSS	F668	F670	F672
F674	FLSK	GYNE	LSDM	LSUC	LSUE	LSUM	MSDG
NCBS	R136	R138	R447	R449	R668	R670	R672
R674	R708	R896	R898	RDES	RDMA	RDMS	RUEG
RUMG	S01Q	S02Q	S03Q	S04Q	S05Q	SHAL	SMGF
SMS1	SMS2	TXDE	TXDM	TXUE	TXUM	UAPP	UMAP
UMLS	UPSG	UPSN	UPSS	USDG	V01Q	V02Q	V03Q
V04Q	WDNS	WUPS	X708	YDRD			

/ Stratford Fringe

0415	0417	0419	0421	0423	0425	0427	0429
0431	0433	0435	0437	0439	0441	0442	0443
0444	0445	0446	0447	0448	0449	0452	0454
0456	0458	0460	0462	0464	0466	0470	0472
0474	0476						

/ Colchester Fringe

1004	1005	1006	1007	1008	1009	1010	1011
1020	1021	1022	1023	1027	1028	1030	1033
1034	1035	1036	1039	1040	1046	1047	1048
1051	1054	1055	1056	1057	1058	1059	1063
1065	1067	1069	1071	1072	1074	1076	1080
1083	1085	4006	4009	4010	4013	P6AR	STIN

2.2 Berths from Stratford IECC

The following berths belong to TD Map Area: STW2

0415	0417	0419	0421	0423	0425	0427	0429
0431	0433	0435	0437	0439	0441	0442	0443
0444	0445	0446	0447	0448	0449	0452	0454
0456	0458	0460	0462	0464	0466	0470	0472
0474	0476						

Version: ALQ1	Drg No: A02/LIV/IECC/ECS/001	SHENFIELD IECC (LIVERPOOL ST IECC C) ECS SIGNALLING ITEMS SPECIFICATION
---------------	------------------------------	--

2.3 Berths from ColchesterMCS

The following berths belong to TD Map Area: COLC

0882	0884	1004	1005	1006	1007	1008	1009
1010	1011	1020	1021	1022	1023	1027	1028
1030	1033	1034	1035	1036	1039	1040	1046
1047	1048	1051	1054	1055	1056	1057	1058
1059	1063	1065	1067	1069	1071	1072	1074
1076	1080	1083	1085	4006	4009	4010	4013
DMAP	P6AR	STIN					

Version: ALQ1	Drg No: A02/LIV/IECC/ECS/001	SHENFIELD IECC (LIVERPOOL ST IECC C) ECS SIGNALLING ITEMS SPECIFICATION
---------------	------------------------------	--

3 ECS INTER-UNIT LINK (1)

3.1 Overview

This ECS-ECS remote system link operates from port 4. It is a link to the Master/Standby Unit with **TD** type initialisation.

3.2 Link Characteristics

LINK CHARACTERISTICS			
Port(s)	4	Baud Rate	19200
Physical Name	P4	Time-Out Period (secs)	1
Area	ECSL	Message Retry Count	8
Protocol	BR1810	Message Retry Field Flag	Set

3.3 Berths

Changes in the contents of **ALL** berths known to the IECC will be transmitted by the Master ECS unit to the Standby ECS unit and vice versa.

3.4 Signalling items

Changes on the status of the following signalling items will be transmitted by the Master ECS unit to the Standby ECS unit and vice versa.

/Address Range 00-0F

Bit 1	Bit 2	Bit 3	Bit 4	Bit 5	Bit 6	Bit 7	Bit 8
R713AM	R713BM	R715AS	R715-23*	R715CM	R723AM	R723BM	R725AM
R725BM	R758AM	R758BM	R762AM	-	R770AM	R770BM	R772AM
R772BM	R772CM	-	R5185BS	R5186AS	-	R629AS	R629-P1*
R629-P2*	R629-P3*	R629-P4*	R631AS	R631-P1*	R631-P2*	R631-P3*	R631-P4*
R631FS	R666AM	R666BM	R666CS	R668AM	R668BM	R668CS	R670AM
R670BM	R670CS	R672AM	R672BM	R672CS	R674AS	R674BM	R674CM
R674DS	-	R5165B	R5165C	R5165D	R5165E	R5167A	-
-	R5170B	R491AM	R491BM	R491CM	R491DM	R491EM	R493-P3*
R493-P2*	R493-P1*	R493DS	R495AM	R495-MD*	R495CS	R495DS	R497AM
R497-MD*	R497CS	R497DS	R499AM	R499BM	R499CM	R501AM	R501BM
R501CS	R501DM	R503AM	R503BM	R503CM	R503DS	R507AM	R507BM
R516AM	R516BS	R516CS	R518AM	R518BS	R522-MU*	R522BS	R522CM
R524-LU*	R524-MU*	R524CS	R524DM	R528-P4*	R528-P5*	R530-P4*	R530-P5*
R534AM	R534-P2*	R536AM	R536BM	R538-34*	R538BM	R552AM	R552BM
R554-52*	R5133A	R5133B	R5133C	R5135A	R5135B	R5135C	R5136A
R5136B	R5137A	R5137B	R5138A	R5138B	R5139A	-	R5140A

Version: ALQ1	Drg No: A02/LIV/IECC/ECS/001	SHENFIELD IECC (LIVERPOOL ST IECC C) ECS SIGNALLING ITEMS SPECIFICATION
---------------	------------------------------	--

/Address Range 10-1F

Bit 1	Bit 2	Bit 3	Bit 4	Bit 5	Bit 6	Bit 7	Bit 8
R5140B	R517AM	R517BM	R519AM	R519BM	R533AM	R533BM	R535AM
R535BM	R560AM	R560BM	R572AM	R572BM	R574AM	R574BM	R735AM
R735BM	R737AM	R737BM	R786AM	R786BM	R788AM	R788BM	-
R489-91*	R489BM	R512AM	R512BM	R671AM	R671BM	R685AM	R685BM
R687AM	R687BM	R724AM	R724BM	R726AM	R726BM	R791AM	R791BM
R793AM	R793BM	R844AM	R844BM	R846AM	R846BM	R819AM	R819BM
-	R825-37*	R825CM	R825DS	R825ES	R827AM	R827BM	R827CS
R827DS	R829AM	R829BS	R829CS	R862AM	R862BM	R872AM	R872BM
R874AM	R874BM	R874CM	R876AM	R876BM	R876CM	-	R878BM
R878CM	R878DM	R882AM	R882BM	R597AM	R597BM	R599AM	R599BM
R636AM	R636BM	R638AM	R638BM	R761-P4*	R761BM	R761CM	R761-P1*
R763-P4*	R763BM	R763CM	R763-P1*	R765AM	R765BM	R769-79*	R769-81*
R773AM	-	R810AM	R810BM	R812AM	R812BM	R814AM	R814BM
R816AM	R816BM	R818-P4*	R820-P3*	R820-P4*	-	R824-P1*	R824-P2*
-	R826-P1*	R826-P2*	R828-22*	R828-20*	R830AM	R830BM	R549AM
R549BM	R551AM	-	R553AM	R553BM	R553CM	R555AM	R555BM

/Address Range 20-2F

Bit 1	Bit 2	Bit 3	Bit 4	Bit 5	Bit 6	Bit 7	Bit 8
R555CM	R557AM	R557BM	R559AM	R559BM	R592AM	R592BM	R594AM
-	R596AM	R596BM	R596CM	R596DM	R602AM	R602BM	R602CM
R602DM	R604AM	R604BM	R5150A	R5150B	R5150C	R5150D	-
R5157B	S711	S713	S715	S717	S723	S725	S727
S756	S758	S760	S762	S764	S766	S770	S772
S778	S5185	S5186	S5188	S625	S627	S629	S631
S662	S666	S668	S670	S672	S674	S5165	S5167
S5170	S491	S493	S495	S497	S499	S501	S503
S507	S509	S511	S516	S518	S522	S524	S528
S530	S534	S536	S538	S540	S542	S552	S554
S5133	S5135	S5137	S5139	-	S5132	S5134	S5136
S5138	S5140	S505	S517	S550	S515	S519	S529
S533	S543	S558	S572	S556	S560	S574	S584
S535	S735	S737	S753	S784	S786	S788	S794
S489	S506	S512	S514	S510	S712	S714	S716
S718	S724	S726	S730	S736	S740	S671	S675

Version: ALQ1	Drg No: A02/LIV/IECC/ECS/001	SHENFIELD IECC (LIVERPOOL ST IECC C) ECS SIGNALLING ITEMS SPECIFICATION
---------------	------------------------------	--

/Address Range 30-3F

Bit 1	Bit 2	Bit 3	Bit 4	Bit 5	Bit 6	Bit 7	Bit 8
S677	S679	S685	S687	S691	S697	S701	S791
S793	S803	S807	S844	S846	S854	S856	S817
S819	S825	S827	S829	S837	S862	S864	S872
S874	S876	S878	S882	S884	S823	S868	S5202
S581	S595	S597	S599	S618	S636	S638	S759
S761	S763	S765	S769	S771	S773	S779	S781
S810	S812	S814	S816	S820	S822	S824	S826
S828	S830	S767	S818	S896	S5189	S549	S551
S553	S555	S557	S559	S569	S592	S594	S602
S604	S596	S692	S694	S696	S708	S639	S649
S651	S5157	S5146	S5148	S5150	LS557TRS	LS594TRS	LS559TRS
LS592TRS	LS553TRS	LS555TRS	LS708TRS	LS765TRS	LS810TRS	LS812TRS	LS814TRS
LS816TRS	LS868TRS	LS495TRS	LS497TRS	LS499TRS	LS501TRS	LS503TRS	LS516TRS
LS518TRS	LS522TRS	LS524TRS	LS5136TRS	LS5138TRS	LS666TRS	LS668TRS	LS670TRS
LS672TRS	LS674TRS	LS5165TS	LS5167TS	LS5170TS	LS758TRS	S447	S449
S475	S477	S498	S570	S583	S611	S613	S487

/Address Range 40

Bit 1	Bit 2	Bit 3	Bit 4	Bit 5	Bit 6	Bit 7	Bit 8
S634	S648	S652	S683	S751	S796	S799	-

The following table details the meshed routes (indicated by a * in the above tables). The meshed route is set when any of the individual route items are set.

Meshed route name	Individual route items constituting the meshed route			
R629-P1	R629BM	R629BC		
R629-P2	R629CM	R629CC		
R629-P3	R629DM	R629DC		
R629-P4	R629EM	R629EC		
R631-P1	R631BM	R631BC		
R631-P2	R631CM	R631CC		
R631-P3	R631DM	R631DC		
R631-P4	R631EM	R631EC		
R493-P3	R493AM	R493AC		
R493-P2	R493BM	R493BC		
R493-P1	R493CM	R493CC		
R495-MD	R495BM	R495BW		
R497-MD	R497BM	R497BW		
R522-MU	R522AM	R522AW		
R524-LU	R524AM	R524AC		
R524-MU	R524BM	R524BW		
R528-P4	R528AM	R528AW		
R528-P5	R528BM	R528BW		
R530-P4	R530AM	R530AW		
R530-P5	R530BM	R530BW		
R534-P2	R534BM	R534BW		
R538-34 (to 534 signal)	R538AM	R538AW		
R554-52 (to 552 signal)	R554AM	R554AW		

Version: ALQ1	Drg No: A02/LIV/IECC/ECS/001	SHENFIELD IECC (LIVERPOOL ST IECC C) ECS SIGNALLING ITEMS SPECIFICATION
---------------	------------------------------	--

Meshed route name	Individual route items constituting the meshed route			
R489-91 (to 491 signal)	R489AM	R489AW		
R715-23 (to 723 signal)	R715BM	R715BS		
R761-P4	R761A1M	R761A1C	R761A2M	R761A2C
R761-P1	R761DM	R761DC		
R763-P4	R763A1M	R763A1C	R763A2M	R763A2C
R763-P1	R763DM	R763DC		
R769-79 (to 779 signal)	R769AM	R769AS		
R769-81 (to 781 signal)	R769BM	R769BS		
R818-P4	R818A1M	R818A1C	R818A2M	R818A2C
R820-P3	R820AM	R820AS		
R820-P4	R820BM	R820BC		
R824-P1	R824BM	R824BC		
R824-P2	R824CM	R824CS		
R825-37 (to 837 signal)	R825BM	R825BS		
R826-P1	R826BM	R826BC		
R826-P2	R826CM	R826CS		
R828-22 (to 822 signal)	R828AM	R828AS		
R828-20 (to 820 signal)	R828BM	R828BS		

Key to Meshed Route Name Suffix

- P1 (to platform 1)
- P2 (to platform 2)
- P3 (to platform 3)
- P4 (to platform 4)
- P5 (to platform 5)
- MD (via Down Main)
- MU (via Up Main)
- LU (via Up Loop)

3.5 Link Status

Links status sent to DIS1 and DIS2.

Version: ALQ1	Drg No: A02/LIV/IECC/ECS/001	SHENFIELD IECC (LIVERPOOL ST IECC C) ECS SIGNALLING ITEMS SPECIFICATION
---------------	------------------------------	--

4 ECS LINK TO SMART PC LINK 1

4.1 Overview

This ECS remote system link operates from port 5. It is a link to SMART PC with **ETB**type initialisation.

4.2 Link Characteristics

LINK CHARACTERISTICS			
Port(s)	5	Baud Rate	9600
Physical Name	P5	Time-Out Period (secs)	2
Area	SPC1	Message Retry Count	2
Protocol	BR1810	Message Retry Field Flag	Set

4.3 Berths

Changes in the contents of ALL berths known to the IECC will be transmitted by ECS to SMART PC LINK 1, EXCEPT:

/ Workstation 1 Fringes

DB01 DB02 DB03 LSDM LSUE LSUM UAPP DAPP

/ Workstation 2 Fringes

1004 1007 1009 1011 1020 1021 1022 1023
1027 1028 1030 1033 1034 1035 1036 1039
1040 1046 1047 1048 1051 1054 1055 1056
1057 1058 1059 1063 1065 1067 1069 1071
1072 1074 1076 1080 1083 1085 4006 4010
4013 DMLS P6AR RDMA STIN UMAP UMLS

All except the above berths shall be transmitted to SMART PC Link 1 when the link is initialised, i.e. All except the above berths should be contained within the SENDSTART section.

Changes in the contents of the following berth will be received by ECS from SMART PC LINK 1:

None.

Version: ALQ1	Drg No: A02/LIV/IECC/ECS/001	SHENFIELD IECC (LIVERPOOL ST IECC C) ECS SIGNALLING ITEMS SPECIFICATION
---------------	------------------------------	--

4.4 Signalling Items

Note: Total number of required berths + S-class items on this link and the Interlinks exceeds the IECC limit of 1024. Therefore, S-class items have been rationalised in order to bring the limit back down under 1024.

Changes on the status of the following signalling items will be transmitted by the ECS to SMART PC LINK 1:

/Address Range 00-0F

Bit 1	Bit 2	Bit 3	Bit 4	Bit 5	Bit 6	Bit 7	Bit 8
R713AM	R713BM	R715AS	R715-23*	R715CM	R723AM	R723BM	R725AM
R725BM	R758AM	R758BM	R762AM	-	R770AM	R770BM	R772AM
R772BM	R772CM	-	R5185BS	R5186AS	-	R629AS	R629-P1*
R629-P2*	R629-P3*	R629-P4*	R631AS	R631-P1*	R631-P2*	R631-P3*	R631-P4*
R631FS	R666AM	R666BM	R666CS	R668AM	R668BM	R668CS	R670AM
R670BM	R670CS	R672AM	R672BM	R672CS	R674AS	R674BM	R674CM
R674DS	-	R5165B	R5165C	R5165D	R5165E	R5167A	-
-	R5170B	R491AM	R491BM	R491CM	R491DM	R491EM	R493-P3*
R493-P2*	R493-P1*	R493DS	R495AM	R495-MD*	R495CS	R495DS	R497AM
R497-MD*	R497CS	R497DS	R499AM	R499BM	R499CM	R501AM	R501BM
R501CS	R501DM	R503AM	R503BM	R503CM	R503DS	R507AM	R507BM
R516AM	R516BS	R516CS	R518AM	R518BS	R522-MU*	R522BS	R522CM
R524-LU*	R524-MU*	R524CS	R524DM	R528-P4*	R528-P5*	R530-P4*	R530-P5*
R534AM	R534-P2*	R536AM	R536BM	R538-34*	R538BM	R552AM	R552BM
R554-52*	R5133A	R5133B	R5133C	R5135A	R5135B	R5135C	R5136A
R5136B	R5137A	R5137B	R5138A	R5138B	R5139A	-	R5140A

/Address Range 10-1F

Bit 1	Bit 2	Bit 3	Bit 4	Bit 5	Bit 6	Bit 7	Bit 8
R5140B	R517AM	R517BM	R519AM	R519BM	R533AM	R533BM	R535AM
R535BM	R560AM	R560BM	R572AM	R572BM	R574AM	R574BM	R735AM
R735BM	R737AM	R737BM	R786AM	R786BM	R788AM	R788BM	-
R489-91*	R489BM	R512AM	R512BM	R671AM	R671BM	R685AM	R685BM
R687AM	R687BM	R724AM	R724BM	R726AM	R726BM	R791AM	R791BM
R793AM	R793BM	R844AM	R844BM	R846AM	R846BM	R819AM	R819BM
-	R825-37*	R825CM	R825DS	R825ES	R827AM	R827BM	R827CS
R827DS	R829AM	R829BS	R829CS	R862AM	R862BM	R872AM	R872BM
R874AM	R874BM	R874CM	R876AM	R876BM	R876CM	-	R878BM
R878CM	R878DM	R882AM	R882BM	R597AM	R597BM	R599AM	R599BM
R636AM	R636BM	R638AM	R638BM	R761-P4*	R761BM	R761CM	R761-P1*
R763-P4*	R763BM	R763CM	R763-P1*	R765AM	R765BM	R769-79*	R769-81*
R773AM	-	R810AM	R810BM	R812AM	R812BM	R814AM	R814BM
R816AM	R816BM	R818-P4*	R820-P3*	R820-P4*	-	R824-P1*	R824-P2*
-	R826-P1*	R826-P2*	R828-22*	R828-20*	R830AM	R830BM	R549AM
R549BM	R551AM	-	R553AM	R553BM	R553CM	R555AM	R555BM

Version: ALQ1	Drg No: A02/LIV/IECC/ECS/001	SHENFIELD IECC (LIVERPOOL ST IECC C) ECS SIGNALLING ITEMS SPECIFICATION
---------------	------------------------------	--

/Address Range 20-2F

Bit 1	Bit 2	Bit 3	Bit 4	Bit 5	Bit 6	Bit 7	Bit 8
R555CM	R557AM	R557BM	R559AM	R559BM	R592AM	R592BM	R594AM
-	R596AM	R596BM	R596CM	R596DM	R602AM	R602BM	R602CM
R602DM	R604AM	R604BM	R5150A	R5150B	R5150C	R5150D	-
R5157B	S711	S713	S715	S717	S723	S725	S727
S756	S758	S760	S762	S764	S766	S770	S772
S778	S5185	S5186	S5188	S625	S627	S629	S631
S662	S666	S668	S670	S672	S674	S5165	S5167
S5170	S491	S493	S495	S497	S499	S501	S503
S507	S509	S511	S516	S518	S522	S524	S528
S530	S534	S536	S538	S540	S542	S552	S554
S5133	S5135	S5137	S5139	-	S5132	S5134	S5136
S5138	S5140	S505	S517	S550	S515	S519	S529
S533	S543	S558	S572	S556	S560	S574	S584
S535	S735	S737	S753	S784	S786	S788	S794
S489	S506	S512	S514	S510	S712	S714	S716
S718	S724	S726	S730	S736	S740	S671	S675

/Address Range 30-3F

Bit 1	Bit 2	Bit 3	Bit 4	Bit 5	Bit 6	Bit 7	Bit 8
S677	S679	S685	S687	S691	S697	S701	S791
S793	S803	S807	S844	S846	S854	S856	S817
S819	S825	S827	S829	S837	S862	S864	S872
S874	S876	S878	S882	S884	S823	S868	S5202
S581	S595	S597	S599	S618	S636	S638	S759
S761	S763	S765	S769	S771	S773	S779	S781
S810	S812	S814	S816	S820	S822	S824	S826
S828	S830	S767	S818	S896	S5189	S549	S551
S553	S555	S557	S559	S569	S592	S594	S602
S604	S596	S692	S694	S696	S708	S639	S649
S651	S5157	S5146	S5148	S5150	LS557TRS	LS594TRS	LS559TRS
LS592TRS	LS553TRS	LS555TRS	LS708TRS	LS765TRS	LS810TRS	LS812TRS	LS814TRS
LS816TRS	LS868TRS	LS495TRS	LS497TRS	LS499TRS	LS501TRS	LS503TRS	LS516TRS
LS518TRS	LS522TRS	LS524TRS	LS5136TRS	LS5138TRS	LS666TRS	LS668TRS	LS670TRS
LS672TRS	LS674TRS	LS5165TS	LS5167TS	LS5170TS	LS758TRS	S447	S449
S475	S477	S498	S570	S583	S611	S613	S487

/Address Range 40

Bit 1	Bit 2	Bit 3	Bit 4	Bit 5	Bit 6	Bit 7	Bit 8
S634	S648	S652	S683	S751	S796	S799	-

The following table details the meshed routes (indicated by a * in the above tables). The meshed route is set when any of the individual route items are set.

Meshed route name	Individual route items constituting the meshed route			
R629-P1	R629BM	R629BC		
R629-P2	R629CM	R629CC		
R629-P3	R629DM	R629DC		

Version: ALQ1	Drg No: A02/LIV/IECC/ECS/001	SHENFIELD IECC (LIVERPOOL ST IECC C) ECS SIGNALLING ITEMS SPECIFICATION
---------------	------------------------------	--

Meshed route name	Individual route items constituting the meshed route			
R629-P4	R629EM	R629EC		
R631-P1	R631BM	R631BC		
R631-P2	R631CM	R631CC		
R631-P3	R631DM	R631DC		
R631-P4	R631EM	R631EC		
R493-P3	R493AM	R493AC		
R493-P2	R493BM	R493BC		
R493-P1	R493CM	R493CC		
R495-MD	R495BM	R495BW		
R497-MD	R497BM	R497BW		
R522-MU	R522AM	R522AW		
R524-LU	R524AM	R524AC		
R524-MU	R524BM	R524BW		
R528-P4	R528AM	R528AW		
R528-P5	R528BM	R528BW		
R530-P4	R530AM	R530AW		
R530-P5	R530BM	R530BW		
R534-P2	R534BM	R534BW		
R538-34 (to 534 signal)	R538AM	R538AW		
R554-52 (to 552 signal)	R554AM	R554AW		
R489-91 (to 491 signal)	R489AM	R489AW		
R715-23 (to 723 signal)	R715BM	R715BS		
R761-P4	R761A1M	R761A1C	R761A2M	R761A2C
R761-P1	R761DM	R761DC		
R763-P4	R763A1M	R763A1C	R763A2M	R763A2C
R763-P1	R763DM	R763DC		
R769-79 (to 779 signal)	R769AM	R769AS		
R769-81 (to 781 signal)	R769BM	R769BS		
R818-P4	R818A1M	R818A1C	R818A2M	R818A2C
R820-P3	R820AM	R820AS		
R820-P4	R820BM	R820BC		
R824-P1	R824BM	R824BC		
R824-P2	R824CM	R824CS		
R825-37 (to 837 signal)	R825BM	R825BS		
R826-P1	R826BM	R826BC		
R826-P2	R826CM	R826CS		
R828-22 (to 822 signal)	R828AM	R828AS		
R828-20 (to 820 signal)	R828BM	R828BS		

Key to Meshed Route Name Suffix

-P1 (to platform 1)
 -P2 (to platform 2)
 -P3 (to platform 3)
 -P4 (to platform 4)
 -P5 (to platform 5)
 -MD (via Down Main)
 -MU (via Up Main)
 -LU (via Up Loop)

4.5 Link Status

Links status sent to DIS1 and DIS2

Version: ALQ1	Drg No: A02/LIV/IECC/ECS/001	SHENFIELD IECC (LIVERPOOL ST IECC C) ECS SIGNALLING ITEMS SPECIFICATION
---------------	------------------------------	--

5 ECS INTER-UNIT LINK (2)

5.1 Overview

This ECS-ECS remote system link operates from port 7. It is a link to the Master/Standby Unit with **TD** type initialisation.

5.2 Link Characteristics

LINK CHARACTERISTICS			
Port(s)	7	Baud Rate	19200
Physical Name	P7	Time-Out Period (secs)	1
Area	ECSL	Message Retry Count	8
Protocol	BR1810	Message Retry Field Flag	Set

5.3 Berths

Changes in the contents of **ALL** berths known to the IECC will be transmitted by the Master ECS unit to the Standby ECS unit and vice versa.

5.4 Signalling items

Changes on the status of the following signalling items will be transmitted by the Master ECS unit to the Standby ECS unit and vice versa.

/Address Range 00-0F

Bit 1	Bit 2	Bit 3	Bit 4	Bit 5	Bit 6	Bit 7	Bit 8
R713AM	R713BM	R715AS	R715-23*	R715CM	R723AM	R723BM	R725AM
R725BM	R758AM	R758BM	R762AM	-	R770AM	R770BM	R772AM
R772BM	R772CM	-	R5185BS	R5186AS	-	R629AS	R629-P1*
R629-P2*	R629-P3*	R629-P4*	R631AS	R631-P1*	R631-P2*	R631-P3*	R631-P4*
R631FS	R666AM	R666BM	R666CS	R668AM	R668BM	R668CS	R670AM
R670BM	R670CS	R672AM	R672BM	R672CS	R674AS	R674BM	R674CM
R674DS	-	R5165B	R5165C	R5165D	R5165E	R5167A	-
-	R5170B	R491AM	R491BM	R491CM	R491DM	R491EM	R493-P3*
R493-P2*	R493-P1*	R493DS	R495AM	R495-MD*	R495CS	R495DS	R497AM
R497-MD*	R497CS	R497DS	R499AM	R499BM	R499CM	R501AM	R501BM
R501CS	R501DM	R503AM	R503BM	R503CM	R503DS	R507AM	R507BM
R516AM	R516BS	R516CS	R518AM	R518BS	R522-MU*	R522BS	R522CM
R524-LU*	R524-MU*	R524CS	R524DM	R528-P4*	R528-P5*	R530-P4*	R530-P5*
R534AM	R534-P2*	R536AM	R536BM	R538-34*	R538BM	R552AM	R552BM
R554-52*	R5133A	R5133B	R5133C	R5135A	R5135B	R5135C	R5136A
R5136B	R5137A	R5137B	R5138A	R5138B	R5139A	-	R5140A

Version: ALQ1	Drg No: A02/LIV/IECC/ECS/001	SHENFIELD IECC (LIVERPOOL ST IECC C) ECS SIGNALLING ITEMS SPECIFICATION
---------------	------------------------------	--

/Address Range 10-1F

Bit 1	Bit 2	Bit 3	Bit 4	Bit 5	Bit 6	Bit 7	Bit 8
R5140B	R517AM	R517BM	R519AM	R519BM	R533AM	R533BM	R535AM
R535BM	R560AM	R560BM	R572AM	R572BM	R574AM	R574BM	R735AM
R735BM	R737AM	R737BM	R786AM	R786BM	R788AM	R788BM	-
R489-91*	R489BM	R512AM	R512BM	R671AM	R671BM	R685AM	R685BM
R687AM	R687BM	R724AM	R724BM	R726AM	R726BM	R791AM	R791BM
R793AM	R793BM	R844AM	R844BM	R846AM	R846BM	R819AM	R819BM
-	R825-37*	R825CM	R825DS	R825ES	R827AM	R827BM	R827CS
R827DS	R829AM	R829BS	R829CS	R862AM	R862BM	R872AM	R872BM
R874AM	R874BM	R874CM	R876AM	R876BM	R876CM	-	R878BM
R878CM	R878DM	R882AM	R882BM	R597AM	R597BM	R599AM	R599BM
R636AM	R636BM	R638AM	R638BM	R761-P4*	R761BM	R761CM	R761-P1*
R763-P4*	R763BM	R763CM	R763-P1*	R765AM	R765BM	R769-79*	R769-81*
R773AM	-	R810AM	R810BM	R812AM	R812BM	R814AM	R814BM
R816AM	R816BM	R818-P4*	R820-P3*	R820-P4*	-	R824-P1*	R824-P2*
-	R826-P1*	R826-P2*	R828-22*	R828-20*	R830AM	R830BM	R549AM
R549BM	R551AM	-	R553AM	R553BM	R553CM	R555AM	R555BM

/Address Range 20-2F

Bit 1	Bit 2	Bit 3	Bit 4	Bit 5	Bit 6	Bit 7	Bit 8
R555CM	R557AM	R557BM	R559AM	R559BM	R592AM	R592BM	R594AM
-	R596AM	R596BM	R596CM	R596DM	R602AM	R602BM	R602CM
R602DM	R604AM	R604BM	R5150A	R5150B	R5150C	R5150D	-
R5157B	S711	S713	S715	S717	S723	S725	S727
S756	S758	S760	S762	S764	S766	S770	S772
S778	S5185	S5186	S5188	S625	S627	S629	S631
S662	S666	S668	S670	S672	S674	S5165	S5167
S5170	S491	S493	S495	S497	S499	S501	S503
S507	S509	S511	S516	S518	S522	S524	S528
S530	S534	S536	S538	S540	S542	S552	S554
S5133	S5135	S5137	S5139	-	S5132	S5134	S5136
S5138	S5140	S505	S517	S550	S515	S519	S529
S533	S543	S558	S572	S556	S560	S574	S584
S535	S735	S737	S753	S784	S786	S788	S794
S489	S506	S512	S514	S510	S712	S714	S716
S718	S724	S726	S730	S736	S740	S671	S675

Version: ALQ1	Drg No: A02/LIV/IECC/ECS/001	SHENFIELD IECC (LIVERPOOL ST IECC C) ECS SIGNALLING ITEMS SPECIFICATION
---------------	------------------------------	--

/Address Range 30-3F

Bit 1	Bit 2	Bit 3	Bit 4	Bit 5	Bit 6	Bit 7	Bit 8
S677	S679	S685	S687	S691	S697	S701	S791
S793	S803	S807	S844	S846	S854	S856	S817
S819	S825	S827	S829	S837	S862	S864	S872
S874	S876	S878	S882	S884	S823	S868	S5202
S581	S595	S597	S599	S618	S636	S638	S759
S761	S763	S765	S769	S771	S773	S779	S781
S810	S812	S814	S816	S820	S822	S824	S826
S828	S830	S767	S818	S896	S5189	S549	S551
S553	S555	S557	S559	S569	S592	S594	S602
S604	S596	S692	S694	S696	S708	S639	S649
S651	S5157	S5146	S5148	S5150	LS557TRS	LS594TRS	LS559TRS
LS592TRS	LS553TRS	LS555TRS	LS708TRS	LS765TRS	LS810TRS	LS812TRS	LS814TRS
LS816TRS	LS868TRS	LS495TRS	LS497TRS	LS499TRS	LS501TRS	LS503TRS	LS516TRS
LS518TRS	LS522TRS	LS524TRS	LS5136TRS	LS5138TRS	LS666TRS	LS668TRS	LS670TRS
LS672TRS	LS674TRS	LS5165TS	LS5167TS	LS5170TS	LS758TRS	S447	S449
S475	S477	S498	S570	S583	S611	S613	S487

/Address Range 40

Bit 1	Bit 2	Bit 3	Bit 4	Bit 5	Bit 6	Bit 7	Bit 8
S634	S648	S652	S683	S751	S796	S799	-

The following table details the meshed routes (indicated by a * in the above tables). The meshed route is set when any of the individual route items are set.

Meshed route name	Individual route items constituting the meshed route			
R629-P1	R629BM	R629BC		
R629-P2	R629CM	R629CC		
R629-P3	R629DM	R629DC		
R629-P4	R629EM	R629EC		
R631-P1	R631BM	R631BC		
R631-P2	R631CM	R631CC		
R631-P3	R631DM	R631DC		
R631-P4	R631EM	R631EC		
R493-P3	R493AM	R493AC		
R493-P2	R493BM	R493BC		
R493-P1	R493CM	R493CC		
R495-MD	R495BM	R495BW		
R497-MD	R497BM	R497BW		
R522-MU	R522AM	R522AW		
R524-LU	R524AM	R524AC		
R524-MU	R524BM	R524BW		
R528-P4	R528AM	R528AW		
R528-P5	R528BM	R528BW		
R530-P4	R530AM	R530AW		
R530-P5	R530BM	R530BW		
R534-P2	R534BM	R534BW		
R538-34 (to 534 signal)	R538AM	R538AW		
R554-52 (to 552 signal)	R554AM	R554AW		
R489-91 (to 491 signal)	R489AM	R489AW		

Version: ALQ1	Drg No: A02/LIV/IECC/ECS/001	SHENFIELD IECC (LIVERPOOL ST IECC C) ECS SIGNALLING ITEMS SPECIFICATION
---------------	------------------------------	--

Meshed route name	Individual route items constituting the meshed route			
R715-23 (to 723 signal)	R715BM	R715BS		
R761-P4	R761A1M	R761A1C	R761A2M	R761A2C
R761-P1	R761DM	R761DC		
R763-P4	R763A1M	R763A1C	R763A2M	R763A2C
R763-P1	R763DM	R763DC		
R769-79 (to 779 signal)	R769AM	R769AS		
R769-81 (to 781 signal)	R769BM	R769BS		
R818-P4	R818A1M	R818A1C	R818A2M	R818A2C
R820-P3	R820AM	R820AS		
R820-P4	R820BM	R820BC		
R824-P1	R824BM	R824BC		
R824-P2	R824CM	R824CS		
R825-37 (to 837 signal)	R825BM	R825BS		
R826-P1	R826BM	R826BC		
R826-P2	R826CM	R826CS		
R828-22 (to 822 signal)	R828AM	R828AS		
R828-20 (to 820 signal)	R828BM	R828BS		

Key to Meshed Route Name Suffix

- P1 (to platform 1)
- P2 (to platform 2)
- P3 (to platform 3)
- P4 (to platform 4)
- P5 (to platform 5)
- MD (via Down Main)
- MU (via Up Main)
- LU (via Up Loop)

5.5 Link Status

Links status sent to DIS1 and DIS2.

Version: ALQ1	Drg No: A02/LIV/IECC/ECS/001	SHENFIELD IECC (LIVERPOOL ST IECC C) ECS SIGNALLING ITEMS SPECIFICATION
---------------	------------------------------	--

6 ECS LINK TO SMART PC LINK 2

6.1 Overview

This ECS remote system link operates from port 8. It is a link to SMART PC with **ETB**type initialisation.

6.2 Link Characteristics

LINK CHARACTERISTICS			
Port(s)	8	Baud Rate	9600
Physical Name	P8	Time-Out Period (secs)	2
Area	SPC2	Message Retry Count	2
Protocol	BR1810	Message Retry Field Flag	Set

6.3 Berths

Changes in the contents of ALL berths known to the IECC will be transmitted by ECS to SMART PC LINK 2, EXCEPT:

/ Workstation 1 Fringes

DB01	DB02	DB03	LSDM	LSUE	LSUM	UAPP	DAPP
------	------	------	------	------	------	------	------

/ Workstation 2 Fringes

1004	1007	1009	1011	1020	1021	1022	1023
1027	1028	1030	1033	1034	1035	1036	1039
1040	1046	1047	1048	1051	1054	1055	1056
1057	1058	1059	1063	1065	1067	1069	1071
1072	1074	1076	1080	1083	1085	4006	4010
4013	DMLS	P6AR	RDMA	STIN	UMAP	UMLS	

All except the above berths shall be transmitted to SMART PC Link 1 when the link is initialised, i.e. All except the above berths should be contained within the SENDSTART section.

Changes in the contents of the following berth will be received by ECS from SMART PC LINK 1:

None.

Version: ALQ1	Drg No: A02/LIV/IECC/ECS/001	SHENFIELD IECC (LIVERPOOL ST IECC C) ECS SIGNALLING ITEMS SPECIFICATION
---------------	------------------------------	--

6.4 Signalling Items

Note: Total number of required berths + S-class items on this link and the Interlinks exceeds the IECC limit of 1024. Therefore, S-class items have been rationalised in order to bring the limit back down under 1024.

Changes on the status of the following signalling items will be transmitted by the ECS to SMART PC LINK 2:

/Address Range 00-0F

Bit 1	Bit 2	Bit 3	Bit 4	Bit 5	Bit 6	Bit 7	Bit 8
R713AM	R713BM	R715AS	R715-23*	R715CM	R723AM	R723BM	R725AM
R725BM	R758AM	R758BM	R762AM	-	R770AM	R770BM	R772AM
R772BM	R772CM	-	R5185BS	R5186AS	-	R629AS	R629-P1*
R629-P2*	R629-P3*	R629-P4*	R631AS	R631-P1*	R631-P2*	R631-P3*	R631-P4*
R631FS	R666AM	R666BM	R666CS	R668AM	R668BM	R668CS	R670AM
R670BM	R670CS	R672AM	R672BM	R672CS	R674AS	R674BM	R674CM
R674DS	-	R5165B	R5165C	R5165D	R5165E	R5167A	-
-	R5170B	R491AM	R491BM	R491CM	R491DM	R491EM	R493-P3*
R493-P2*	R493-P1*	R493DS	R495AM	R495-MD*	R495CS	R495DS	R497AM
R497-MD*	R497CS	R497DS	R499AM	R499BM	R499CM	R501AM	R501BM
R501CS	R501DM	R503AM	R503BM	R503CM	R503DS	R507AM	R507BM
R516AM	R516BS	R516CS	R518AM	R518BS	R522-MU*	R522BS	R522CM
R524-LU*	R524-MU*	R524CS	R524DM	R528-P4*	R528-P5*	R530-P4*	R530-P5*
R534AM	R534-P2*	R536AM	R536BM	R538-34*	R538BM	R552AM	R552BM
R554-52*	R5133A	R5133B	R5133C	R5135A	R5135B	R5135C	R5136A
R5136B	R5137A	R5137B	R5138A	R5138B	R5139A	-	R5140A

/Address Range 10-1F

Bit 1	Bit 2	Bit 3	Bit 4	Bit 5	Bit 6	Bit 7	Bit 8
R5140B	R517AM	R517BM	R519AM	R519BM	R533AM	R533BM	R535AM
R535BM	R560AM	R560BM	R572AM	R572BM	R574AM	R574BM	R735AM
R735BM	R737AM	R737BM	R786AM	R786BM	R788AM	R788BM	-
R489-91*	R489BM	R512AM	R512BM	R671AM	R671BM	R685AM	R685BM
R687AM	R687BM	R724AM	R724BM	R726AM	R726BM	R791AM	R791BM
R793AM	R793BM	R844AM	R844BM	R846AM	R846BM	R819AM	R819BM
-	R825-37*	R825CM	R825DS	R825ES	R827AM	R827BM	R827CS
R827DS	R829AM	R829BS	R829CS	R862AM	R862BM	R872AM	R872BM
R874AM	R874BM	R874CM	R876AM	R876BM	R876CM	-	R878BM
R878CM	R878DM	R882AM	R882BM	R597AM	R597BM	R599AM	R599BM
R636AM	R636BM	R638AM	R638BM	R761-P4*	R761BM	R761CM	R761-P1*
R763-P4*	R763BM	R763CM	R763-P1*	R765AM	R765BM	R769-79*	R769-81*
R773AM	-	R810AM	R810BM	R812AM	R812BM	R814AM	R814BM
R816AM	R816BM	R818-P4*	R820-P3*	R820-P4*	-	R824-P1*	R824-P2*
-	R826-P1*	R826-P2*	R828-22*	R828-20*	R830AM	R830BM	R549AM
R549BM	R551AM	-	R553AM	R553BM	R553CM	R555AM	R555BM

Version: ALQ1	Drg No: A02/LIV/IECC/ECS/001	SHENFIELD IECC (LIVERPOOL ST IECC C) ECS SIGNALLING ITEMS SPECIFICATION
---------------	------------------------------	--

/Address Range 20-2F

Bit 1	Bit 2	Bit 3	Bit 4	Bit 5	Bit 6	Bit 7	Bit 8
R555CM	R557AM	R557BM	R559AM	R559BM	R592AM	R592BM	R594AM
-	R596AM	R596BM	R596CM	R596DM	R602AM	R602BM	R602CM
R602DM	R604AM	R604BM	R5150A	R5150B	R5150C	R5150D	-
R5157B	S711	S713	S715	S717	S723	S725	S727
S756	S758	S760	S762	S764	S766	S770	S772
S778	S5185	S5186	S5188	S625	S627	S629	S631
S662	S666	S668	S670	S672	S674	S5165	S5167
S5170	S491	S493	S495	S497	S499	S501	S503
S507	S509	S511	S516	S518	S522	S524	S528
S530	S534	S536	S538	S540	S542	S552	S554
S5133	S5135	S5137	S5139	-	S5132	S5134	S5136
S5138	S5140	S505	S517	S550	S515	S519	S529
S533	S543	S558	S572	S556	S560	S574	S584
S535	S735	S737	S753	S784	S786	S788	S794
S489	S506	S512	S514	S510	S712	S714	S716
S718	S724	S726	S730	S736	S740	S671	S675

/Address Range 30-3F

Bit 1	Bit 2	Bit 3	Bit 4	Bit 5	Bit 6	Bit 7	Bit 8
S677	S679	S685	S687	S691	S697	S701	S791
S793	S803	S807	S844	S846	S854	S856	S817
S819	S825	S827	S829	S837	S862	S864	S872
S874	S876	S878	S882	S884	S823	S868	S5202
S581	S595	S597	S599	S618	S636	S638	S759
S761	S763	S765	S769	S771	S773	S779	S781
S810	S812	S814	S816	S820	S822	S824	S826
S828	S830	S767	S818	S896	S5189	S549	S551
S553	S555	S557	S559	S569	S592	S594	S602
S604	S596	S692	S694	S696	S708	S639	S649
S651	S5157	S5146	S5148	S5150	LS557TRS	LS594TRS	LS559TRS
LS592TRS	LS553TRS	LS555TRS	LS708TRS	LS765TRS	LS810TRS	LS812TRS	LS814TRS
LS816TRS	LS868TRS	LS495TRS	LS497TRS	LS499TRS	LS501TRS	LS503TRS	LS516TRS
LS518TRS	LS522TRS	LS524TRS	LS5136TRS	LS5138TRS	LS666TRS	LS668TRS	LS670TRS
LS672TRS	LS674TRS	LS5165TS	LS5167TS	LS5170TS	LS758TRS	S447	S449
S475	S477	S498	S570	S583	S611	S613	S487

/Address Range 40

Bit 1	Bit 2	Bit 3	Bit 4	Bit 5	Bit 6	Bit 7	Bit 8
S634	S648	S652	S683	S751	S796	S799	-

The following table details the meshed routes (indicated by a * in the above tables). The meshed route is set when any of the individual route items are set.

Meshed route name	Individual route items constituting the meshed route			
R629-P1	R629BM	R629BC		
R629-P2	R629CM	R629CC		
R629-P3	R629DM	R629DC		

Version: ALQ1	Drg No: A02/LIV/IECC/ECS/001	SHENFIELD IECC (LIVERPOOL ST IECC C) ECS SIGNALLING ITEMS SPECIFICATION
---------------	------------------------------	--

Meshed route name	Individual route items constituting the meshed route			
R629-P4	R629EM	R629EC		
R631-P1	R631BM	R631BC		
R631-P2	R631CM	R631CC		
R631-P3	R631DM	R631DC		
R631-P4	R631EM	R631EC		
R493-P3	R493AM	R493AC		
R493-P2	R493BM	R493BC		
R493-P1	R493CM	R493CC		
R495-MD	R495BM	R495BW		
R497-MD	R497BM	R497BW		
R522-MU	R522AM	R522AW		
R524-LU	R524AM	R524AC		
R524-MU	R524BM	R524BW		
R528-P4	R528AM	R528AW		
R528-P5	R528BM	R528BW		
R530-P4	R530AM	R530AW		
R530-P5	R530BM	R530BW		
R534-P2	R534BM	R534BW		
R538-34 (to 534 signal)	R538AM	R538AW		
R554-52 (to 552 signal)	R554AM	R554AW		
R489-91 (to 491 signal)	R489AM	R489AW		
R715-23 (to 723 signal)	R715BM	R715BS		
R761-P4	R761A1M	R761A1C	R761A2M	R761A2C
R761-P1	R761DM	R761DC		
R763-P4	R763A1M	R763A1C	R763A2M	R763A2C
R763-P1	R763DM	R763DC		
R769-79 (to 779 signal)	R769AM	R769AS		
R769-81 (to 781 signal)	R769BM	R769BS		
R818-P4	R818A1M	R818A1C	R818A2M	R818A2C
R820-P3	R820AM	R820AS		
R820-P4	R820BM	R820BC		
R824-P1	R824BM	R824BC		
R824-P2	R824CM	R824CS		
R825-37 (to 837 signal)	R825BM	R825BS		
R826-P1	R826BM	R826BC		
R826-P2	R826CM	R826CS		
R828-22 (to 822 signal)	R828AM	R828AS		
R828-20 (to 820 signal)	R828BM	R828BS		

Key to Meshed Route Name Suffix

-P1 (to platform 1)
 -P2 (to platform 2)
 -P3 (to platform 3)
 -P4 (to platform 4)
 -P5 (to platform 5)
 -MD (via Down Main)
 -MU (via Up Main)
 -LU (via Up Loop)

Version: ALQ1	Drg No: A02/LIV/IECC/ECS/001	SHENFIELD IECC (LIVERPOOL ST IECC C) ECS SIGNALLING ITEMS SPECIFICATION
---------------	------------------------------	--

6.5 Link Status

Links status sent to DIS1 and DIS2.

Version: ALQ1	Drg No: A02/LIV/IECC/ECS/001	SHENFIELD IECC (LIVERPOOL ST IECC C) ECS SIGNALLING ITEMS SPECIFICATION
---------------	------------------------------	--