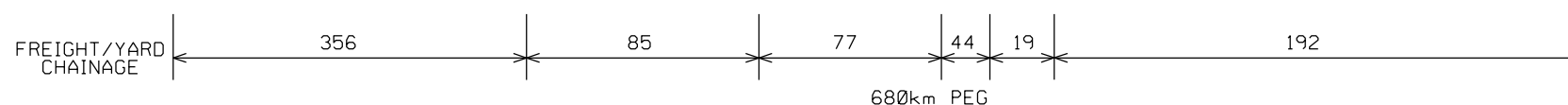
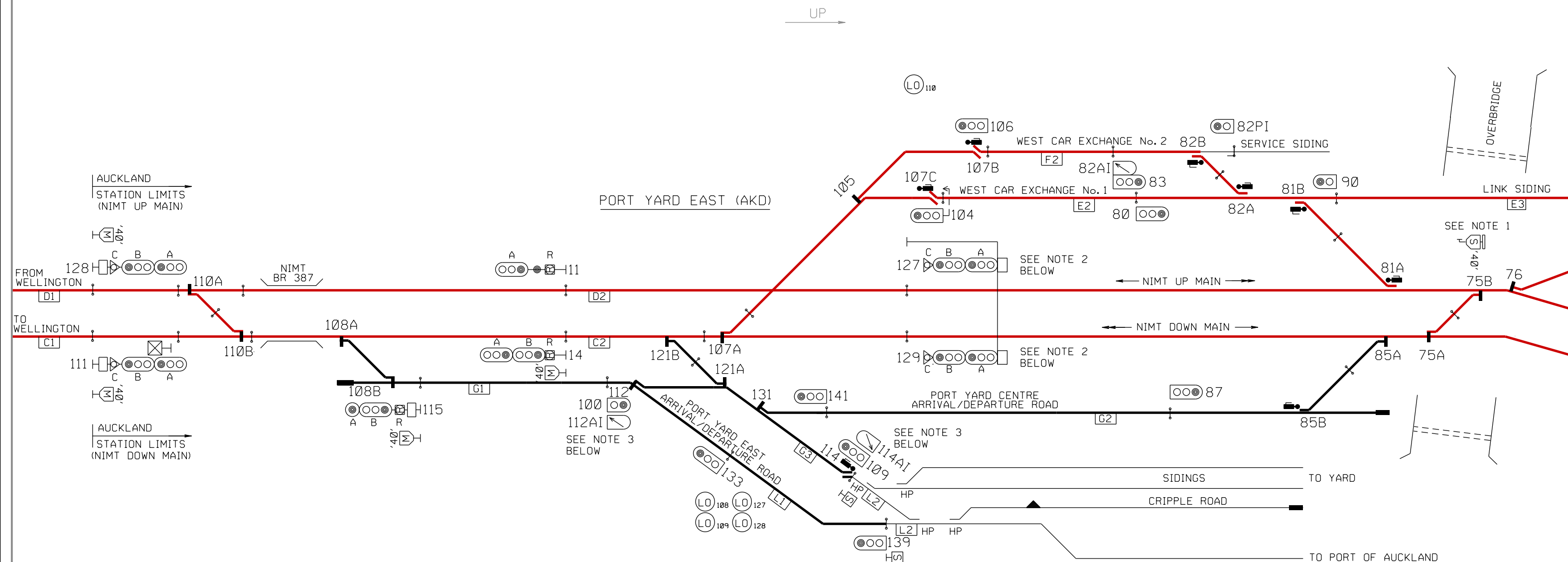


SIGNALLING & INTERLOCKING ARRANGEMENTS

THESE ARRANGEMENTS WILL BE BROUGHT INTO USE AT A TIME AND DATE TO BE ADVISED BY ALERT.
THIS CANCELS S&I No. 3482

THESE TO BE COMPLETED BY THE RECIPIENT OF THE S & I DIAGRAM



SEE S & I DIAGRAM
FOR TAMAKI

SHEET 3

NOTE: 1) SIGN ABOVE 40km/h SPEED BOARD READS "NIMT"
2) DUE TO CLEARANCE PROBLEMS THE ROUTE INDICATORS
ON 127 AND 129 SIGNALS ARE ABOVE THE 'A' UNITS
3) 112AI/114AI PAIR CLEAR TOGETHER AND ALLOW SHUNTING BETWEEN THEM

AXLE COUNTER
(USED WITHIN AXLE COUNTER AREA)

 HAND OPERATED POINTS

LOCKOUT ARRANGEMENT
NUMBER DENOTES ZONE

NOTE: THIS IS A COLOUR DIAGRAM
RED LINES INDICATE ROUTE AVAILABLE FOR ELECTRIC TRAINS

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ALL SIGNALS FITTED WITH ETCS
ALL 'A' LIGHTS WILL BE NORMALLY EXTINGUISHED

P.R. KING
SENIOR SIGNALS ENGINEER

AUCKLAND

SIGNALLING & INTERLOCKING ARRANGEMENTS

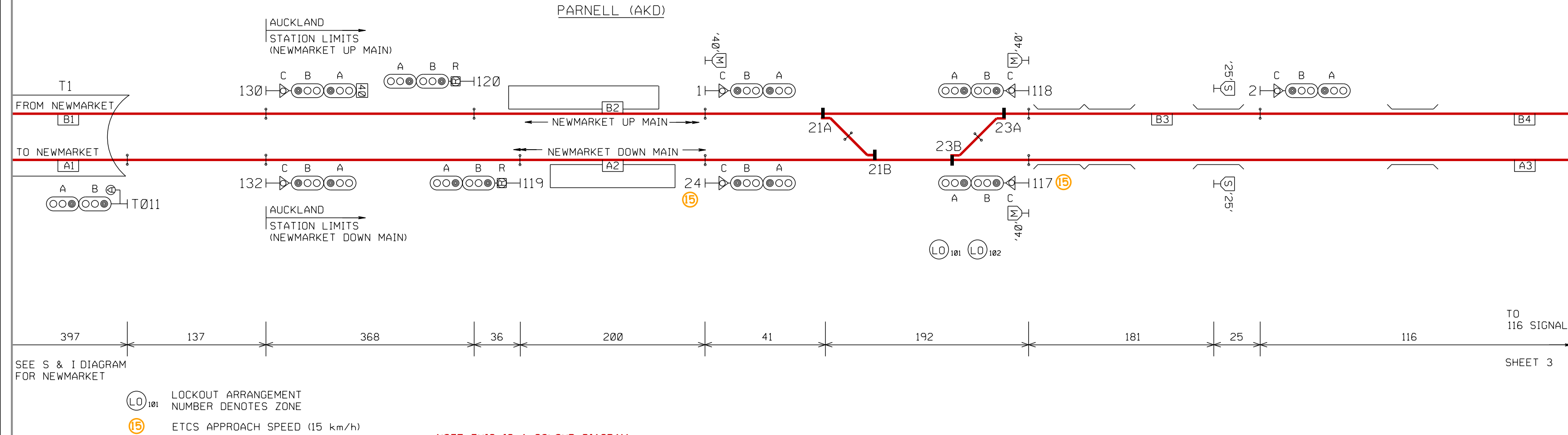
DESCRIPTION OF SIGNALS

1ABC	UP HOME FROM B2	NORMAL SPEED TO B3 MEDIUM SPEED TO A4 LOW SPEED TO B3 OR A4
2ABC	UP DIRECTING FROM B3	NORMAL SPEED TO B4 LOW SPEED TO B4
24ABC	UP HOME FROM A2	NORMAL SPEED TO A4 MEDIUM SPEED TO B3 LOW SPEED TO B3 OR A4
116ABC	DOWN DIRECTING FROM A4	NORMAL SPEED TO A3 LOW SPEED TO A3
117ABC	DOWN DIRECTING FROM A3	NORMAL SPEED TO A2 MEDIUM SPEED TO B2 LOW SPEED TO B2, A2 OR Y2
118ABC	DOWN DIRECTING FROM B3	NORMAL SPEED TO B2 MEDIUM SPEED TO A2 LOW SPEED TO B2, A2 OR Y2

DESCRIPTION OF SIGNALS

119ABR	DOWN DEPARTURE FROM A2	NORMAL SPEED TO A1 RESTRICTED SPEED TO A1
120ABR	DOWN DEPARTURE FROM B2	NORMAL SPEED TO B1 RESTRICTED SPEED TO B1
130ABC	UP OUTER HOME FROM B1	NORMAL SPEED TO B2 # NORMAL SPEED (40 km/h) TO 1 LOW SPEED TO B2
132ABC	UP OUTER HOME FROM A1	NORMAL SPEED TO A2 LOW SPEED TO A2

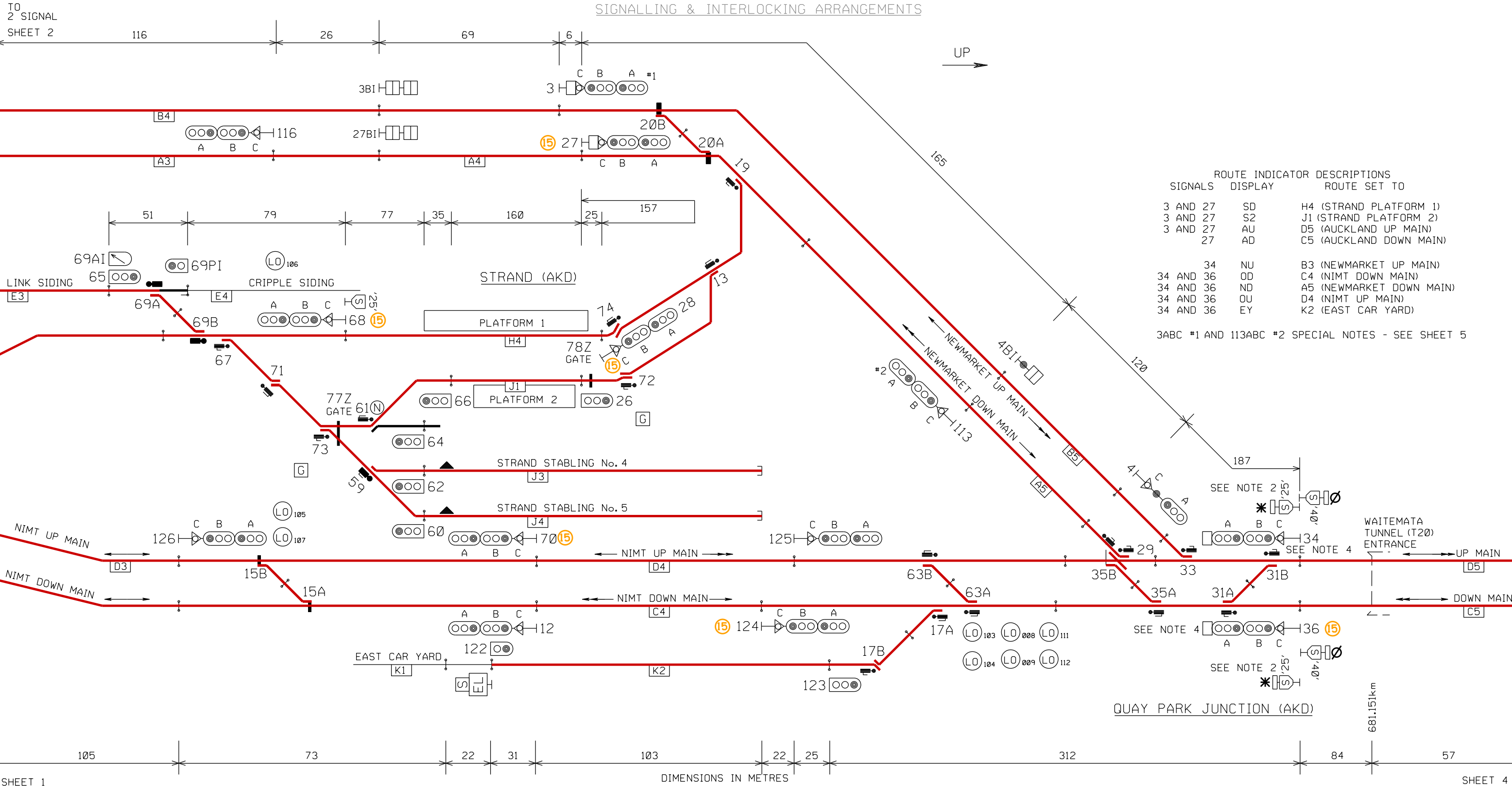
AS DISPLAYED ON SPEED INDICATOR



NOTE: THIS IS A COLOUR DIAGRAM
RED LINES INDICATE ROUTE AVAILABLE FOR ELECTRIC TRAINS

AUCKLAND

SIGNALLING & INTERLOCKING ARRANGEMENTS



ROUTE INDICATOR DESCRIPTIONS		
SIGNALS	DISPLAY	ROUTE SET TO
3 AND 27	SD	H4 (STRAND PLATFORM 1)
3 AND 27	S2	J1 (STRAND PLATFORM 2)
3 AND 27	AU	D5 (AUCKLAND UP MAIN)
27	AD	C5 (AUCKLAND DOWN MAIN)
34	NU	B3 (NEWMARKET UP MAIN)
34 AND 36	OD	C4 (NIMT DOWN MAIN)
34 AND 36	ND	A5 (NEWMARKET DOWN MAIN)
34 AND 36	OU	D4 (NIMT UP MAIN)
34 AND 36	EY	K2 (EAST CAR YARD)

3ABC #1 AND 113ABC #2 SPECIAL NOTES - SEE SHEET 5

- NOTES:

 - 1 * SPEED BOARD MOUNTED ON SIGNAL
 - 2 SIGN ABOVE SLOW 25km/h SPEED BOARD LEADING TO NEWMARKET
 - 3 ∅ ADDITIONAL BOARD WITH WORDING 'FOR TRAIN FROM NEWMARKET WHEN CLEAR OF TURNOUT'
- NOTES CONT:

 - 4 DUE TO CLEARANCE PROBLEMS THE ROUTE INDICATORS ON 34 AND 36 SIGNALS ARE ABOVE THE 'A' UNITS
 - 5 77Z AND 78Z ARE 5.5 m SLIDING GATES
 - 6 [G] CONTROL FOR SLIDING GATES
 - 7 ▲ MANUAL DERAILERS LOCKED IN 'OPEN' POSITION. REFER TO L1.2 LOCAL INSTRUCTIONS.
- 15 ETCS APPROACH SPEED (15 km/h)

N POINTS SECURED AND DETECTED NORMAL

NOTE: THIS IS A COLOUR DIAGRAM
RED LINES INDICATE ROUTE AVAILABLE FOR ELECTRIC TRAINS

AUCKLAND

SIGNALLING & INTERLOCKING ARRANGEMENTS

DESCRIPTION OF SIGNALS

38AC	UP DIRECTING FROM D5	NORMAL SPEED TO D6 LOW SPEED TO D6
40ABC	DOWN DIRECTING FROM C6	NORMAL SPEED TO C5 LOW SPEED TO P1, P2, P3 OR P4
42ABC	UP DIRECTING FROM D6	NORMAL SPEED TO D7 MEDIUM SPEED TO P1, P2 OR P3 LOW SPEED TO P1, P2, P3 OR D7
44AC	UP DIRECTING FROM D7	NORMAL SPEED TO P4 LOW SPEED TO P4
46ABC	DOWN DIRECTING FROM D6	NORMAL SPEED TO D5 LOW SPEED TO D5
48AC	UP DIRECTING FROM C5	NORMAL SPEED TO C6 LOW SPEED TO C6
50ABC	UP DIRECTING FROM C6	NORMAL SPEED TO P1 MEDIUM SPEED TO P2, P3 OR D7 LOW SPEED TO P1, P2, P3 OR D7
51AC	DOWN DIRECTING FROM P1	NORMAL SPEED TO C6 MEDIUM SPEED TO D6 LOW SPEED TO C6 OR D6
52AC	DOWN DIRECTING FROM P2	NORMAL SPEED TO C6 OR D6 LOW SPEED TO C6 OR D6
53AC	DOWN DIRECTING FROM P3	NORMAL SPEED TO C6 OR D6 LOW SPEED TO C6 OR D6
54AC	DOWN DIRECTING FROM P4	NORMAL SPEED TO C6 OR D6 MEDIUM SPEED TO C6 LOW SPEED TO C6 OR D6
134AR	UP DEPARTURE FROM PLATFORM 4	NORMAL SPEED TO UP MAIN RESTRICTED SPEED TO UP MAIN
136AR	UP DEPARTURE FROM PLATFORM 1	NORMAL SPEED TO DOWN MAIN RESTRICTED SPEED TO DOWN MAIN
135ABC	DOWN HOME FROM UP MAIN	NORMAL SPEED TO PLATFORM 4 LOW SPEED TO PLATFORM 4
137ABC	DOWN HOME FROM DOWN MAIN	NORMAL SPEED TO PLATFORM 1 LOW SPEED TO PLATFORM 1

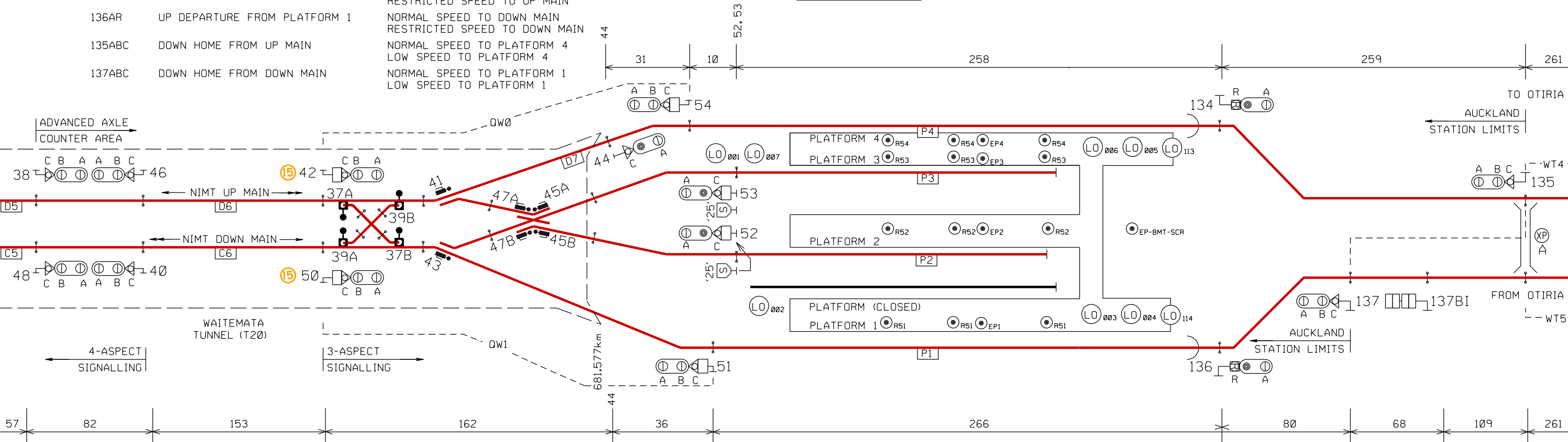
42 AND 50 SIGNALS ROUTE INDICATOR DESCRIPTIONS

- 1 - ROUTE SET TO P1
- 2 - ROUTE SET TO P2
- 3 - ROUTE SET TO P3
- 4 - ROUTE SET TO P4

51, 52, 53 AND 54 SIGNALS ROUTE INDICATOR DESCRIPTIONS

- D - DOWN MAIN
- U - UP MAIN

WAITEMATA (AKD)



SHEET 3

VOESTALPINE POINT MACHINE NOTES:
CRANK HANDLE IN LOCKED BOX - REFER TO LOCAL INSTRUCTIONS

SIDE WHERE
CONTROL UNIT
IS MOUNTED
SETTING UNIT - MOUNTED IN GAUGE.
47A
POINT SETTING UNIT - SIDE MOUNTED.

15 ETCS APPROACH SPEED (15 km/h)

EP1 PLATFORM EMERGENCY
PLUNGER DEVICE

EP-BMT-SCR MASTER EMERGENCY PLUNGER
IN STATION CONTROL ROOM

44 C A MINIATURE TUNNEL SIGNAL FITTED WITH SINGLE TRI-COLOUR UNIT AND MARKER LIGHT

38 C B A MINIATURE TUNNEL SIGNAL FITTED WITH DOUBLE TRI-COLOUR UNITS

SEE S & I DIAGRAM FOR
TE WAIHOROTIU - KARANGA-A-HAPE

NOTE: THIS IS A COLOUR DIAGRAM
RED LINES INDICATE ROUTE AVAILABLE FOR ELECTRIC TRAINS

P.R. KING
SENIOR SIGNALS ENGINEER

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AUCKLAND

SIGNALLING & INTERLOCKING ARRANGEMENTS

DESCRIPTION OF SIGNALS
SHEET 3 - STRAND & QUAY PARK (AKD)

*1 - 3ABC	UP DIRECTING FROM B4	NORMAL SPEED TO B5 MEDIUM SPEED TO H4 LOW SPEED TO B5, H4 OR J1
4AC	UP DIRECTING FROM B5	NORMAL SPEED TO D5 LOW SPEED TO D5
12ABC	DOWN DIRECTING FROM C4	NORMAL SPEED TO C2 MEDIUM SPEED TO D2 LOW SPEED TO G2, C2, D2, E2 OR F2
26	DOWN SHUNT FROM J1	LOW SPEED TO A4 OR B3
27ABC	UP DIRECTING FROM A4	NORMAL SPEED TO C5 MEDIUM SPEED TO D5 OR H4 LOW SPEED TO D5, C5, H4 OR J1
28ABC	DOWN DIRECTING FROM H4	NORMAL SPEED TO A4 MEDIUM SPEED TO B3 LOW SPEED TO A4 OR B3
34ABC	DOWN DIRECTING FROM D5	NORMAL SPEED TO D4 MEDIUM SPEED TO C4, A5 OR B3 LOW SPEED TO K2, C4, D4, A5 OR B3
36ABC	DOWN DIRECTING FROM C5	NORMAL SPEED TO C4 MEDIUM SPEED TO D4 OR A5 LOW SPEED TO K2, C4, D4 OR A5
60	UP SHUNT FROM J4	LOW SPEED TO G2, C2, D2, E2, F2 OR E3
62	UP SHUNT FROM J3	LOW SPEED TO G2, C2, D2, E2, F2 OR E3
64	UP SHUNT FROM J2	LOW SPEED TO G2, C2, D2, E2, F2 OR E3
65	UP SHUNT FROM E3	LOW SPEED TO H4, J1, J2, J3 OR J4
66	DOWN SHUNT FROM J1	LOW SPEED TO G2, C2, D2, E2, F2 OR E3
68ABC	DOWN DIRECTING FROM H4	NORMAL SPEED TO D2 MEDIUM SPEED TO C2 LOW SPEED TO G2, C2, D2, E2, F2 OR E3
70ABC	DOWN DIRECTING FROM D4	NORMAL SPEED TO D2 MEDIUM SPEED TO C2 LOW SPEED TO G2, C2, D2, E2 OR F2
*2 - 113ABC	DOWN DIRECTING FROM A5	NORMAL SPEED TO A4 LOW SPEED TO A4
122	UP SHUNT FROM K1	LOW SPEED TO K2
123	UP SHUNT FROM K2	LOW SPEED TO C5 OR D5
124ABC	UP DIRECTING FROM C4	NORMAL SPEED TO C5 MEDIUM SPEED TO D5 LOW SPEED TO D5 OR C5
125ABC	UP DIRECTING FROM D4	NORMAL SPEED TO D5 MEDIUM SPEED TO C5 LOW SPEED TO D5 OR C5
126ABC	UP DIRECTING FROM D3	NORMAL SPEED TO D4 MEDIUM SPEED TO C4 LOW SPEED TO D4 OR C4

*1 - ROUTE FROM 3ABC TO A5 VIA 20A/B REVERSE NOT AVAILABLE
IN SIGNALLING OR FOR MANUAL WORKING

*2 - ROUTE FROM 113ABC TO B4 VIA 20A/B REVERSE NOT AVAILABLE
IN SIGNALLING OR FOR MANUAL WORKING

DESCRIPTION OF SIGNALS
SHEET 1 - PORT YARD EAST & CENTRE

11AR	DOWN DEPARTURE FROM D2	NORMAL SPEED TO D1 RESTRICTED SPEED TO D1
14ABR	DOWN DEPARTURE FROM C2	NORMAL SPEED TO C1 MEDIUM SPEED TO D1 RESTRICTED SPEED TO C1 OR D1
80	UP SHUNT FROM E2	LOW SPEED TO E3, H4, J1, J3, J4 OR D3
83	UP SHUNT FROM F2	LOW SPEED TO E3, H4, J1, J3, J4 OR D3
87	UP SHUNT FROM G2	LOW SPEED TO E3, H4, J1, J3, J4 OR D3
90	DOWN SHUNT FROM E3	LOW SPEED TO F2 OR E2
100	UP SHUNT FROM G1	LOW SPEED TO G2, G3 OR L1
104	DOWN SHUNT FROM E2	LOW SPEED TO C2
106	DOWN SHUNT FROM F2	LOW SPEED TO C2
109	DOWN SHUNT FROM L2	LOW SPEED TO G1 OR C2
111ABC	UP HOME FROM C1	NORMAL SPEED TO C2 MEDIUM SPEED TO G1 LOW SPEED TO F2, E2, C2 OR G1, G2 OR G3
115ABR	DOWN DEPARTURE FROM G1	MEDIOUM SPEED TO C1 OR D1 RESTRICTED SPEED TO C1 OR D1
127ABC	UP DIRECTING FROM D2	NORMAL SPEED TO D3 MEDIUM SPEED TO H4 LOW SPEED TO H4, J1, J3, J4 OR D3
128ABC	UP HOME FROM D1	NORMAL SPEED TO D2 MEDIUM SPEED TO C2, G1 LOW SPEED TO F2, E2, D2, C2, G1, G2 OR G3
129ABC	UP DIRECTING FROM C2	NORMAL SPEED TO C4 MEDIUM SPEED TO H4 OR D3 LOW SPEED TO H4, J1, J3, J4, D3 OR C4
133	DOWN SHUNT FROM L1	LOW SPEED TO G1
139	DOWN SHUNT FROM L2	LOW SPEED TO L1
141	DOWN SHUNT FROM G2	LOW SPEED TO G1 OR C2

ROUTE INDICATOR DESCRIPTIONS
SHEET 1 - PORT YARD EAST & CENTRE

SIGNALS	DISPLAY	ROUTE SET TO
111	D	C2 (NIMT DOWN MAIN)
	Y1	G1 (PORT YARD EAST ARRIVAL/DEPARTURE ROAD)
	Y2	G2 (PORT YARD CENTRE ARRIVAL/DEPARTURE ROAD)
	Y3	G3 (PORT YARD SIDINGS)
115	W1	E2 (WEST CAR EXCHANGE NO. 1)
	W2	F2 (WEST CAR EXCHANGE NO. 2)
	U	D1 (NIMT UP MAIN)
	D	C1 (NIMT DOWN MAIN)
127	SU	H4 (STRAND PLATFORM 1)
	S2	J1 (STRAND PLATFORM 2)
	S3	J2 (STRAND STABLING 3)
	S4	J3 (STRAND STABLING 4)
128	S5	J4 (STRAND STABLING 5)
	AU	D3 (BRITOMART UP MAIN)
	U	D2 (NIMT UP MAIN)
	D	C2 (NIMT DOWN MAIN)
129	Y1	G1 (PORT YARD EAST ARRIVAL/DEPARTURE ROAD)
	Y2	G2 (PORT YARD CENTRE ARRIVAL/DEPARTURE ROAD)
	Y3	G3 (PORT YARD SIDINGS)
	W1	E2 (WEST CAR EXCHANGE NO. 1)
129	W2	F2 (WEST CAR EXCHANGE NO. 2)
	SU	H4 (STRAND PLATFORM 1)
	S2	J1 (STRAND PLATFORM 2)
	S3	J2 (STRAND STABLING 3)
	S4	J3 (STRAND STABLING 4)
	S5	J4 (STRAND STABLING 5)
	AU	D3 (BRITOMART UP MAIN)
	AD	C4 (BRITOMART DOWN MAIN)