

Legend

KEY		All Existing Elements are shown in BLACK		FTN Access Node with GSM-R Colocated	Fibre Joint Routeworks	Manhole	Platform	Telephone										
Proposed Fibre & Civils Elements are shown in RED		Existing Fibre Cable																
Proposed Copper Elements are shown in BLUE		Existing Copper Cable																
All Recoveries are shown in GREEN		Existing Screen Cable																

Notes

Rev	Date	Description of Revisions	Drawn	Chkd	Appr
B	24/05/2011	Converted to As-built	MT	RP	SW
A	28/08/2008	2nd Issue	MT	AEL	SW
DA	20/08/2008	1st Issue	MT	AEL	SW

Contractor(s)

Status As-built

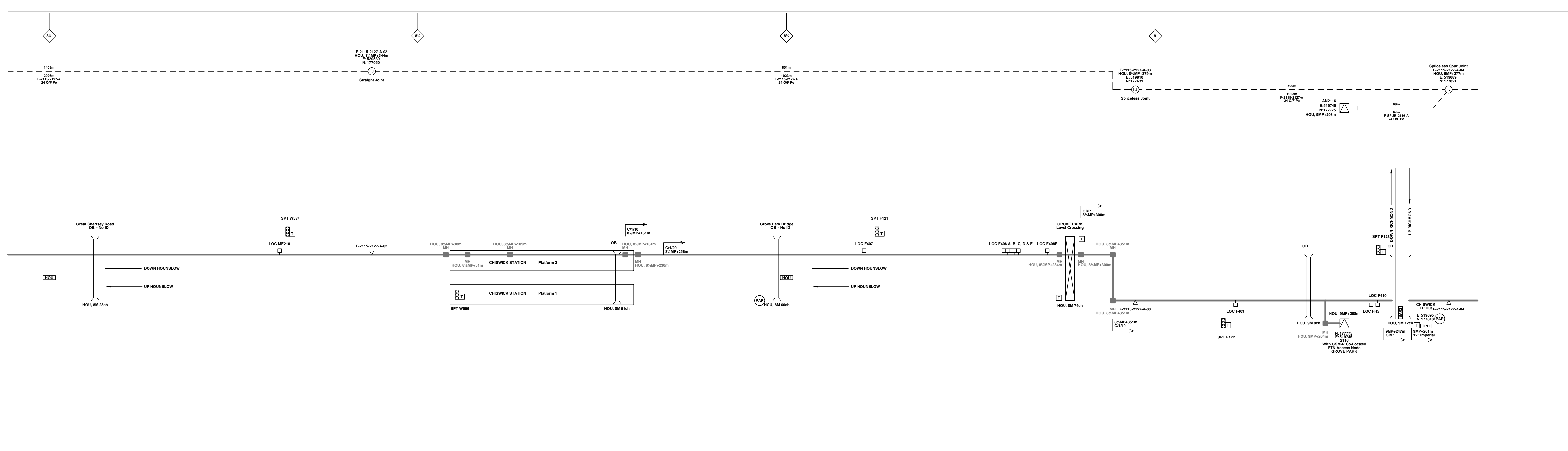
Scale(s) ELR & Mileage
HOU

Designed	Michal Taraj	Sign.		Date	24/05/2011
Drawn	Michal Taraj	Sign.		Date	24/05/2011
Checked	Rashmi Patel	Sign.		Date	24/05/2011
Approved	Steve Witt	Sign.		Date	24/05/2011
Project	FTN / GSM-R Project WP10-04				
Drawing Title	Barnes Relay Room (2115) Grove Park (2116)				

FTN/GSM-R Project
Tottenham House
Paddington
London
W2 1HA

Alternative Reference: See Layout Tab A3 Sheets 1 and 2

Sheet 1 of 2
Revision B



Legend

	Cabinet and Verts		Copper Joint		Trough Duct Cable Tray		Signal Box		FTN Core Node		Screen Joint Routeworks		Manhole details: Cross - To be used Filled - In use Clear - Empty		Overbridge		Signal		Engineer's Line Reference		Crossing		GAS	Gas Line
	Cabinet with Regenerator and Verts		Fibre Joint		Cable - Type Identified by FTN Code Status - as per Key Below		Electrical Control Room		Core Node with GSM-R Colocated		Copper Joint Routeworks		Manhole		Underbridge		Vehicle Access Point		Mile Post		Gantry		HV	HV Cable
	Proposed Fibre & Civils Elements are shown in RED		Screening Conductor Joint with/without Earth		Manhole		Mid Length Sheath Gap Fibre		FTN Access Node		Cabinet Routeworks		Tunnel		Platform		Pedestrian Access Point		Telephone		Cable Pull		LV	LV Cable
	Proposed Copper Elements are shown in BLUE		Manhole		FTN Access Node with GSM-R Colocated		Sheath Gap Copper		Fibre Joint Routeworks		Earth Farm		Buffer Stop		AC Stanchion		SEW	Sewer		W	Water		TEL	Telecoms
	Proposed Screening Elements are shown in MAGENTA		Manhole		Existing Fibre Cable																			
	All Recoveries are shown in GREEN		Manhole		Existing Copper Cable																			
	Manhole		Manhole		Existing Screen Cable																			

Notes

Rev	Date	Description of Revisions	Drawn	Chkd	Appr
B	24/05/2011	Converted to As-built	MT	RP	SW
A	28/08/2008	2nd Issue	MT	AEL	SW
DA	20/08/2008	1st Issue	MT	AEL	SW

McNicholas

As-built

Scale(s): ELR & Mileage
HOU

Designed	Michal Taraj	Sign.		Date	24/05/2011
Drawn	Michal Taraj	Sign.		Date	24/05/2011
Checked	Rashmi Patel	Sign.		Date	24/05/2011
Approved	Steve Witt	Sign.		Date	24/05/2011

Project: FTN / GSM-R Project WP10-04

Drawing Title: Barnes Relay Room (2115) Grove Park (2116)

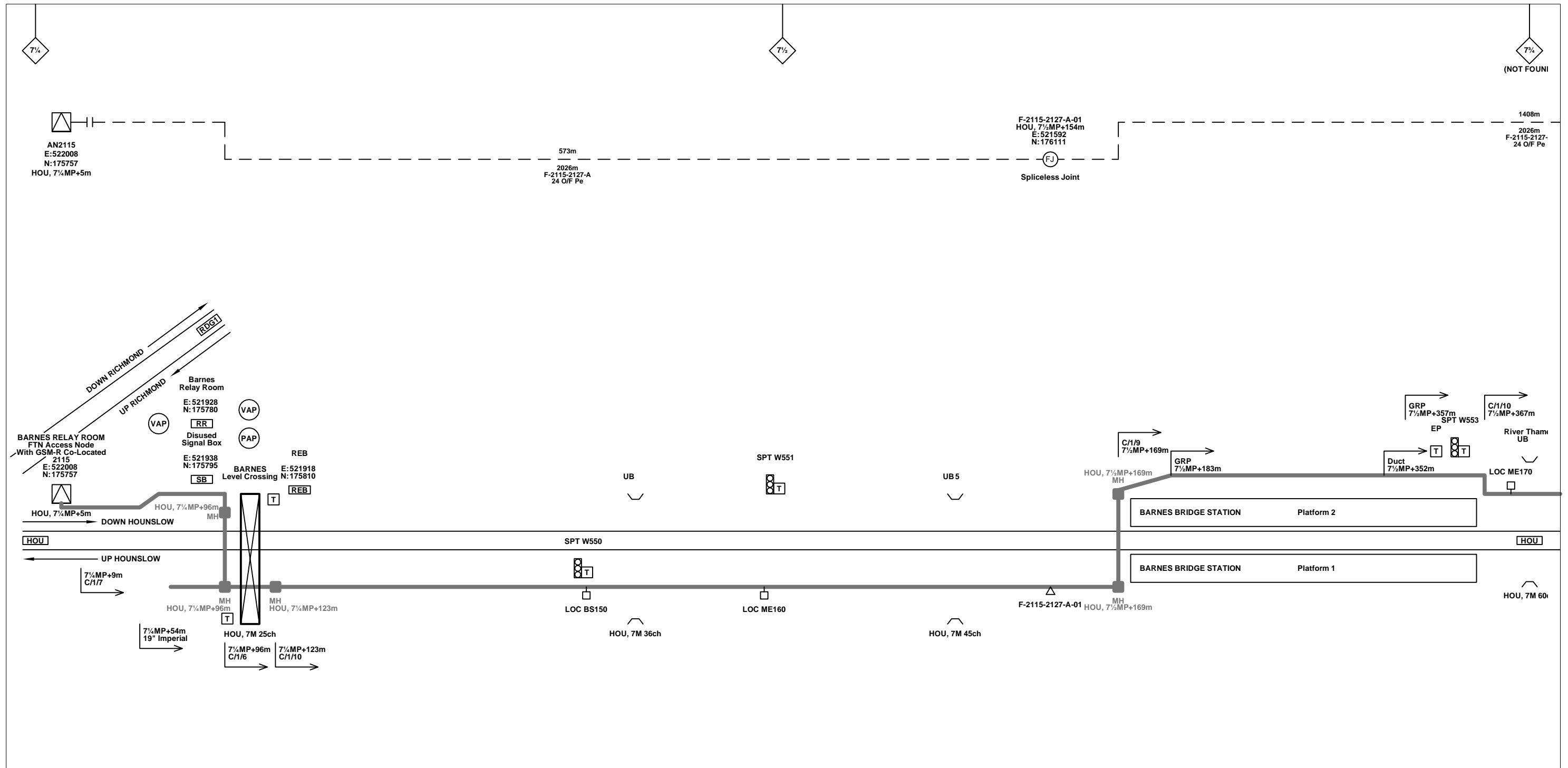
Network Rail

FTN/GSM-R Project
Tottenham House
London
W2 1HA

Alternative Reference: See Layout Tab A3 Sheets 3 and 4

Drawing Number: NTPO\SLD\2115\2116\001

Sheet: 2 of 2
Revision: B



Legend

Cabinet and Verts	Copper Joint	Trough Duct Cable Tray	Signal Box	FTN Core Node	Screen Joint Routeworks	Overbridge	Signal	Engineer's Line Reference	Crossing	GAS — GAS — GAS — Gas Line
Cabinet with Regenerator and Verts	Fibre Joint	Cable - Type Identified by FTN Code	Electrical Control Room	Core Node with GSM-R Colocated	Copper Joint Routeworks	Underbridge	VAP Access Point	Mile Post	Gantry	HV — HV — HV — HV Cable
KEY	Screening Conductor Joint with/without Earth	Manhole	Mid Length Sheath Gap Fibre	FTN Access Node	Cabinet Routeworks	Manhole details: Cross-To be used	PAP Access Point	Platform	SEW — SEW — SEW — Sewer	LV — LV — LV — LV Cable
Proposed Fibre & Civils Elements are shown in RED	All Existing Elements are shown in BLACK	Sheath Gap Copper	FTN Access Node with GSM-R Colocated	Fibre Joint Routeworks	Tunnel	Earth Farm	Buffer Stop	Telephone	TEL — TEL — TEL — Telecoms	W — W — W — Water
Proposed Copper Elements are shown in BLUE	Existing Fibre Cable								Copper Pull	AC Stanchion
Proposed Screening Elements are shown in MAGENTA	Existing Copper Cable									
All Recoveries are shown in GREEN	Existing Screen Cable									

Notes

Rev	Date	Description of Revisions	Drawn	Chkd	Appr
B	24/05/2011	Converted to As-built	MT	RP	SW
A	28/08/2008	2nd Issue	MT	AEL	SW
DA	20/08/2008	1st Issue	MT	AEL	SW

Contractor(s)

Status As-built

Scale(s) NTS

ELR & Mileage HOU

Designed	Michal Taraj	Sign.	Date	24/05/2011
Drawn	Michal Taraj	Sign.	Date	24/05/2011
Checked	Rashmi Patel	Sign.	Date	24/05/2011
Approved	Steve Witt	Sign.	Date	24/05/2011
Project	FTN / GSM-R Project WP10-04			
Drawing Title	Barnes Relay Room (2115) Grove Park (2116)			

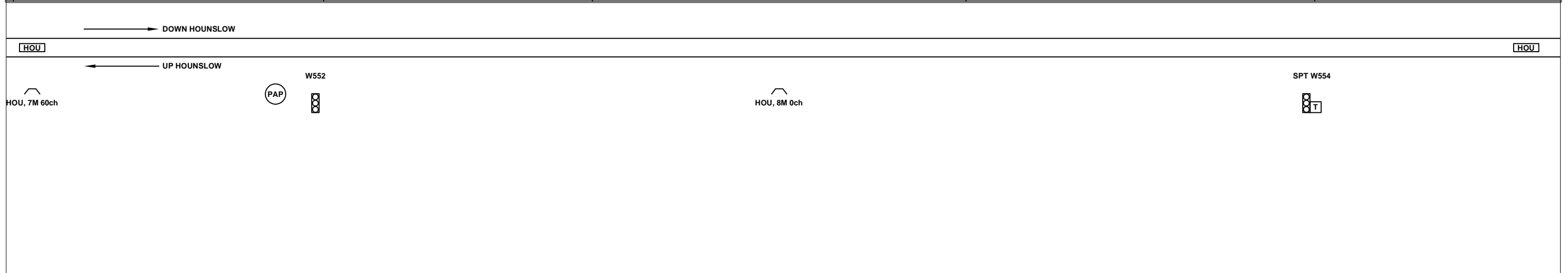
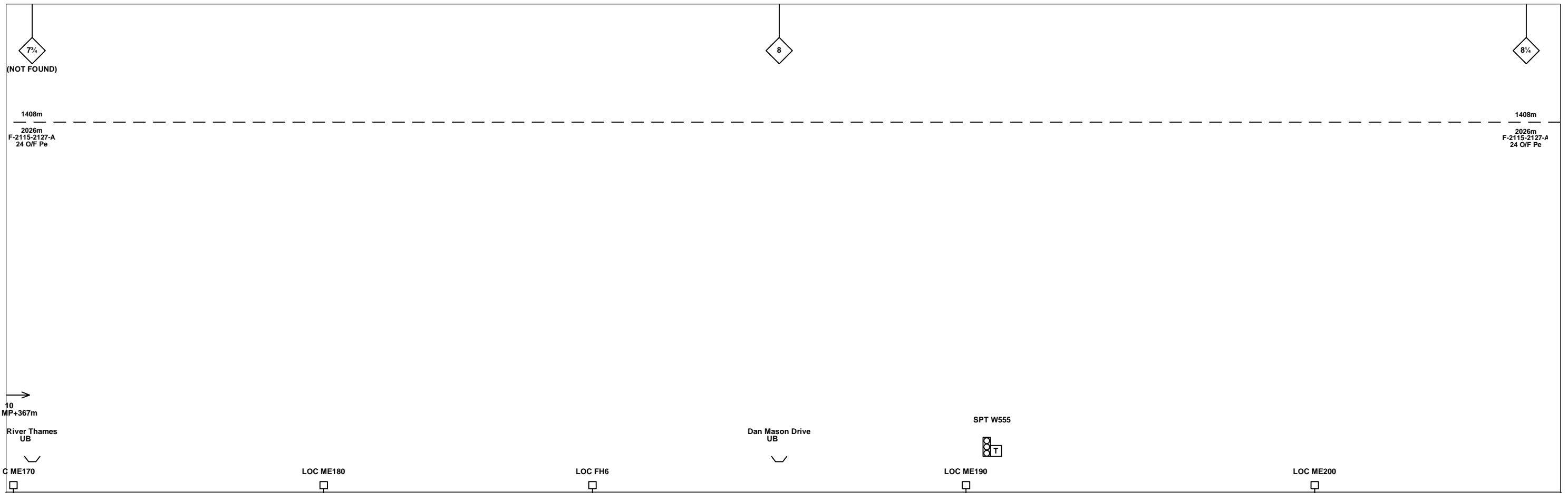
FTN/GSM-R Project
Tournament House
Paddington
London
W2 1HA

Alternative Reference See Layout Tab 841 x 297 Sheet 1

Drawing Number NTPO\SLD\2115\2116\001

Sheet 1 of 4

Revision B



Legend

Cabinet and Verts	Copper Joint	Trough Duct Cable Tray	Signal Box	FTN Core Node	Screen Joint Routeworks	Overbridge	Signal	Engineer's Line Reference	Crossing	Gas Line
Cabinet with Regenerator and Verts	Fibre Joint	Cable - Type Identified by FTN Code	Electrical Control Room	Core Node with GSM-R Colocated	Copper Joint Routeworks	Underbridge	Vehicle Access Point	Mile Post	Gantry	HV Cable
KEY	Screening Conductor Joint with/without Earth	Manhole	Mid Length Sheath Gap Fibre	FTN Access Node	Cabinet Routeworks	Manhole details: Cross-To be used, Filled-In use, Clear-Empty	Pedestrian Access Point	Platform	Sewer	LV Cable
Proposed Fibre & Civils Elements are shown in RED										Sewer
Proposed Copper Elements are shown in BLUE										Telecoms
Proposed Screening Elements are shown in MAGENTA										Water
All Recoveries are shown in GREEN										
										Earth Farm
										Buffer Stop
										Telephone
										Cable Pull
										AC Stanchion

Notes

Rev	Date	Description of Revisions	Drawn	Chkd	Appr
B	24/05/2011	Converted to As-built	MT	RP	SW
A	28/08/2008	2nd Issue	MT	AEL	SW
DA	20/08/2008	1st Issue	MT	AEL	SW

McNicholas

Contractor(s)

Status: **As-built**

Scale(s): **NTS**

ELR & Mileage: **HOU**

Designed	Michal Taraj	Sign.	Date	24/05/2011
Drawn	Michal Taraj	Sign.	Date	24/05/2011
Checked	Rashmi Patel	Sign.	Date	24/05/2011
Approved	Steve Witt	Sign.	Date	24/05/2011
Project	FTN / GSM-R Project WP10-04			
Drawing Title	Barnes Relay Room (2115) Grove Park (2116)			

Network Rail

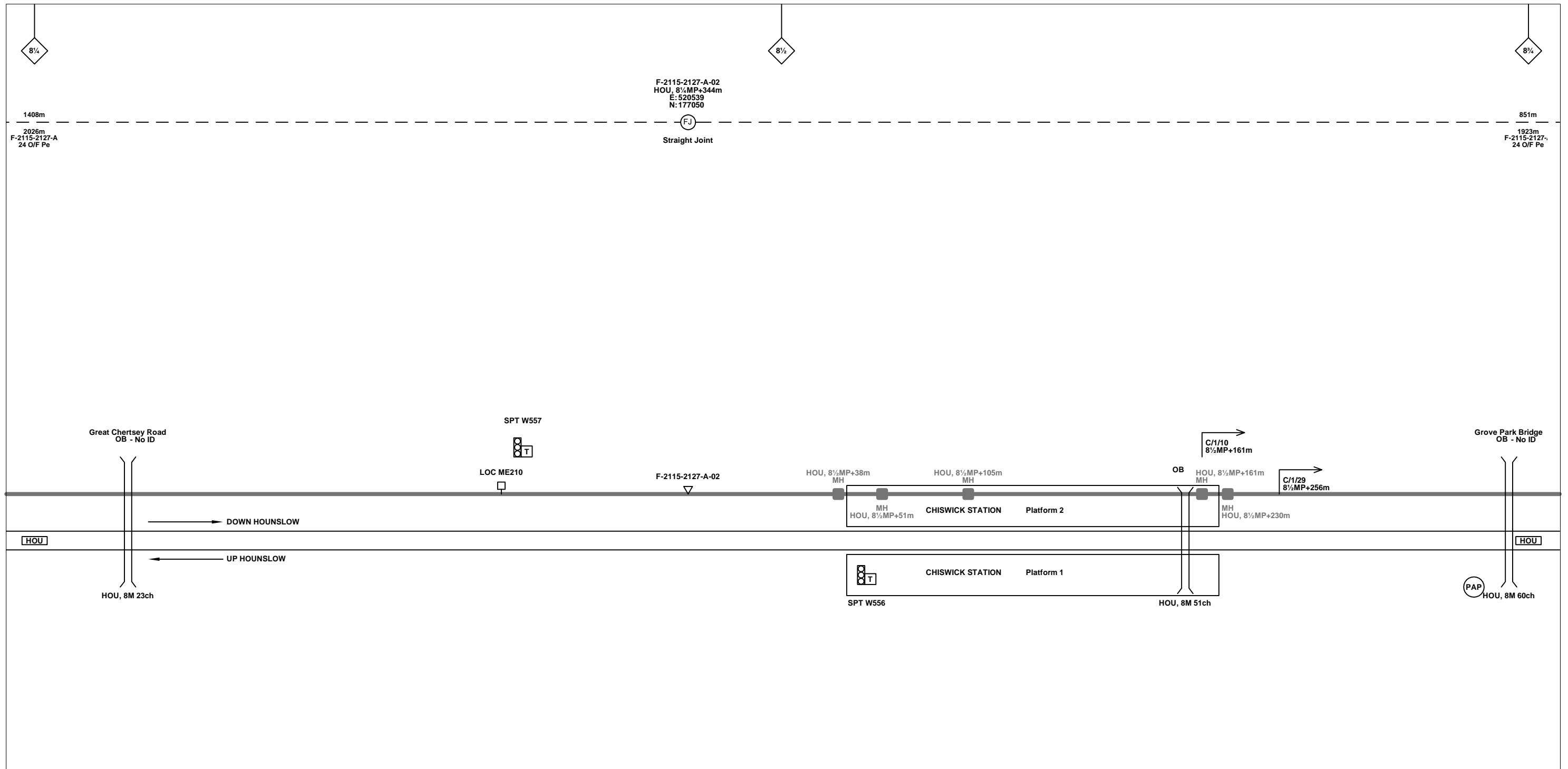
FTN/GSM-R Project
Tournament House
Paddington
London
W2 1HA

Alternative Reference: **See Layout Tab 841 x 297 Sheet 1**

Drawing Number: **NTPO\SLD\2115\2116\001**

Sheet: **2 of 4**

Revision: **B**



Legend

Cabinet and Verts	Copper Joint	Trough Duct Cable Tray	Signal Box	FTN Core Node	Screen Joint Routeworks	Overbridge	Signal	Engineer's Line Reference	Crossing	GAS	HV	LV	SEW	TEL	Water
Cabinet with Regenerator and Verts	Fibre Joint	Cable - Type Identified by FTN Code	Electrical Control Room	Core Node with GSM-R Colocated	Copper Joint Routeworks	Underbridge	Vehicle Access Point	Mile Post	Gantry	HV	LV	SEW	TEL	Water	
KEY	Screening Conductor Joint with/without Earth	Manhole	Mid Length Sheath Gap Fibre	FTN Access Node	Cabinet Routeworks	Tunnel	Pedestrian Access Point	Platform	Cable Pull	Earth Farm	Buffer Stop	Telephone	AC Stanchion		

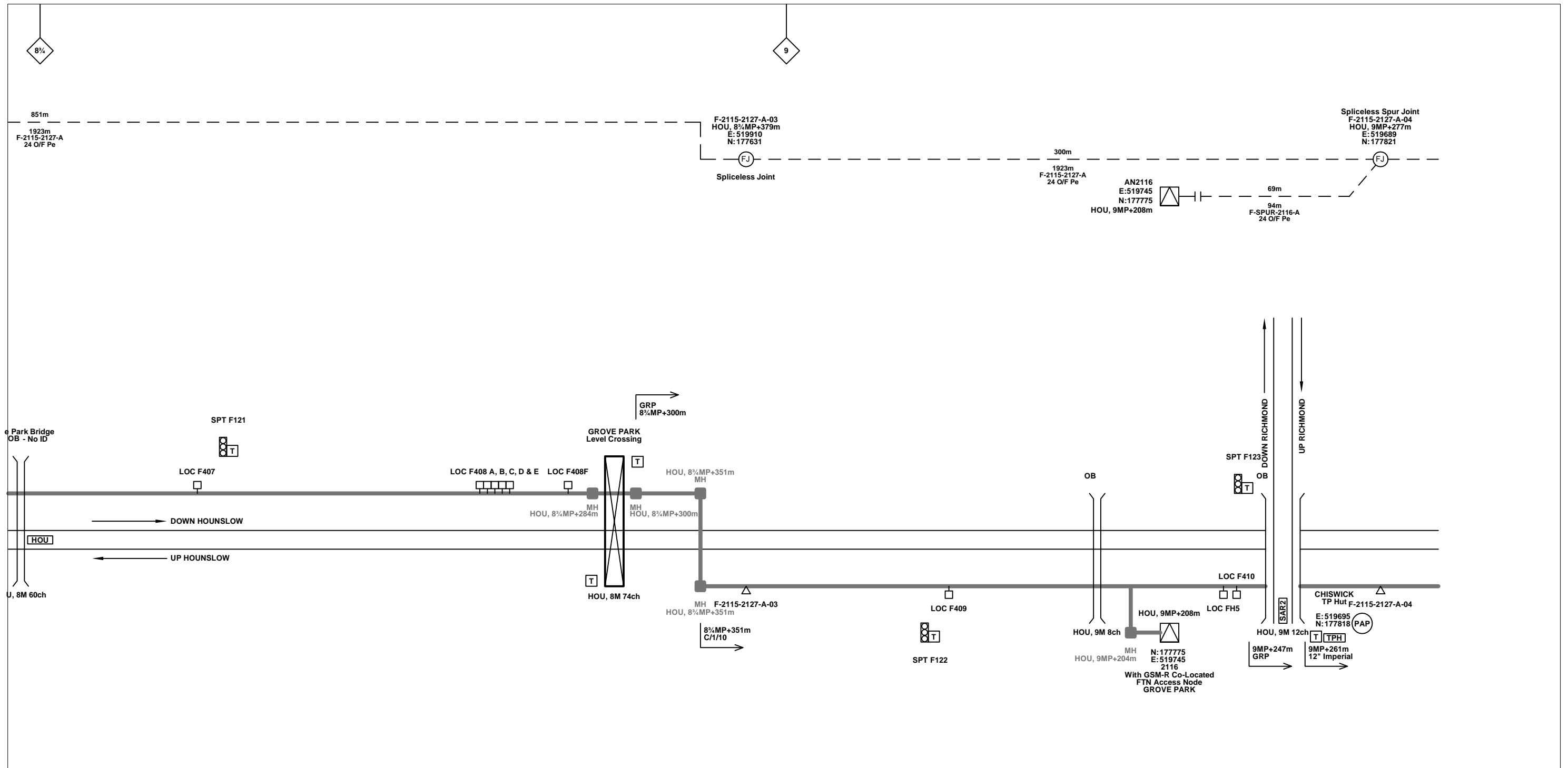
KEY
 Proposed Fibre & Civils Elements are shown in RED
 Proposed Copper Elements are shown in BLUE
 Proposed Screening Elements are shown in MAGENTA
 All Recoveries are shown in GREEN

Notes

Contractor(s)

Manhole details:
 Cross-To be used
 Filled-In use
 Clear-Empty

<p>Notes</p>		<p>Contractor(s)</p>		<p>Designed: Michal Taraj Sign. Date: 24/05/2011</p> <p>Drawn: Michal Taraj Sign. Date: 24/05/2011</p> <p>Checked: Rashmi Patel Sign. Date: 24/05/2011</p> <p>Approved: Steve Witt Sign. Date: 24/05/2011</p>		<p>Network Rail</p>	
<p>McNicholas</p>		<p>FTN / GSM-R Project WP10-04</p>		<p>Project</p>		<p>FTN/GSM-R Project Tournament House Paddington London W2 1HA</p>	
<p>Status As-built</p>		<p>Drawing Title Barnes Relay Room (2115) Grove Park (2116)</p>		<p>Alternative Reference See Layout Tab 841 x 297 Sheet 2</p>		<p>Sheet 3 of 4</p>	
<p>Scale(s) NTS</p>		<p>ELR & Mileage HOU</p>		<p>Drawing Number NTPO\SLD\2115\2116\001</p>		<p>Revision B</p>	
<p>Rev Date Description of Revisions Drawn Chkd Appr</p>		<p>Scale(s)</p>		<p>Alternative Reference</p>		<p>Revision</p>	
B	24/05/2011	Converted to As-built	MT	RP	SW		
A	28/08/2008	2nd Issue	MT	AEL	SW		
DA	20/08/2008	1st Issue	MT	AEL	SW		



Legend

Cabinet and Verts	Copper Joint	Trough Duct Cable Tray	Signal Box	FTN Core Node	Screen Joint Routeworks	Overbridge	Signal	Engineer's Line Reference	Gas Line
Cabinet with Regenerator and Verts	Fibre Joint	Cable - Type Identified by FTN Code	Electrical Control Room	Core Node with GSM-R Colocated	Copper Joint Routeworks	Underbridge	Vehicle Access Point	Mile Post	HV Cable
KEY	Screening Conductor Joint with/without Earth	Manhole	Mid Length Sheath Gap Fibre	FTN Access Node	Cabinet Routeworks	Manhole details: Cross-To be used, Filled-In use, Clear-Empty	Pedestrian Access Point	Platform	LV Cable
Proposed Fibre & Civils Elements are shown in RED		Sheath Gap Copper	FTN Access Node with GSM-R Colocated	Fibre Joint Routeworks	Tunnel	Earth Farm	Buffer Stop	Telephone	Sewer
Proposed Copper Elements are shown in BLUE									Telecoms
Proposed Screening Elements are shown in MAGENTA									Water
All Recoveries are shown in GREEN									Crossing
									Gantry
									Cable Pull
									AC Stanchion

		Contractor(s) HOU		Designed Michal Taraj Drawn Michal Taraj Checked Rashmi Patel Approved Steve Witt		Sign. Date 24/05/2011			
Status As-built		Project FTN / GSM-R Project WP10-04		Drawing Title Barnes Relay Room (2115) Grove Park (2116)		Alternative Reference See Layout Tab 841 x 297 Sheet 2		Sheet 4 of 4	
Scale(s) NTS		ELR & Mileage HOU		Drawing Number NTPO\SLD\2115\2116\001		Revision B		FTN/GSM-R Project Tournament House Paddington London W2 1HA	
Rev Date Description of Revisions		Drawn Chkd Appr		Rev Date Description of Revisions		Drawn Chkd Appr		Rev Date Description of Revisions	
B	24/05/2011	Converted to As-built	MT	RP	SW				
A	28/08/2008	2nd Issue	MT	AEL	SW				
DA	20/08/2008	1st Issue	MT	AEL	SW				