

2327 to 2328 Intermediate Works Bill of Quantities			
7.359	Renumber Fibre Joint	each	2
7.373	Rename Cable (Fibre)	each	1

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 Line		HV Cable		LV Cable		Sewer		Telecoms		Water		AC Stanchion	
	Cabinet with Regenerator and Verts		Fibre Joint		Electrical Control Room		Manhole		Core Node with GSM-R Colocated		Copper Joint Routeworks		Tunnel		Underbridge		VAP Access Point		Mile Post		Gantry		Copper Blue Fibre Red Screen Green		Buffer Stop		Telephone									
	Screening Conductor Joint with/without Earth		Status as per Key Below		Mid Length Sheath Gap Fibre		FTN Access Node		FTN Access Node with GSM-R Colocated		Cabinet Routeworks				Earth Farm		Pedestrian Access Point		Platform																	

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

KEY
 All Existing Elements are shown in BLACK
 Existing Fibre Cable
 Existing Copper Cable
 Existing Screen Cable

Notes

Rev	Date	Description of Revisions	Drawn	Chkd	Appr
C	05.05.11	Amended As Per NWR Design Review	DA	JW	CT
B	25.11.10	Stage 2 Design - First Issue	MB	JW	CT
A	07.10.08	Amended Issue		AEL	
DA	17.08.08	1st Issue		AEL	

ndc consultants
 Unit 4 Apex Park, Wainwright Road, Worcester, Worcestershire, WR4 9FN. Tel: 01905 756000

Contractor(s)

Designed: Mike Bonner
 Drawn: Joe Winter
 Checked: Chris Tappendan
 Approved: Chris Tappendan

Status: Design
 Scale(s): ELR & Mileage
 PAA1/PAA2

Project	FTN / GSM-R Project
Design Title	Aldershot Station (2327) to Farnham Station 1 (2328)

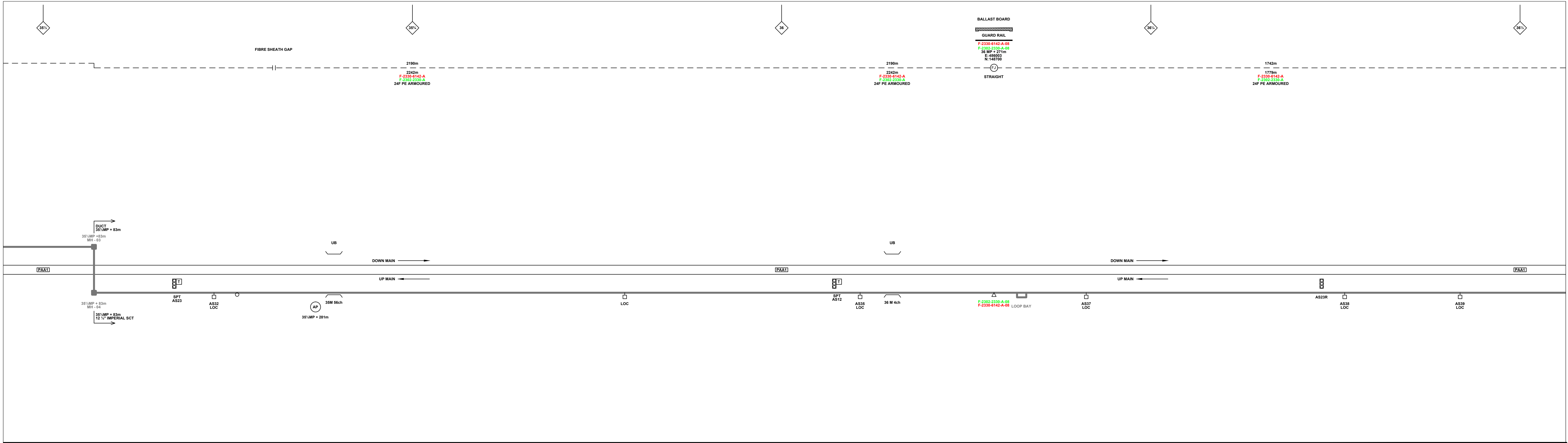
Network Rail

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

Alternative Reference: See Layout Tab A3 Sheets 1 and 2

Drawing Number: NTPO\SLD\2327\2328\001

Sheet 1 of 4
 Revision C



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	MLNT	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	Manhole	Underbridge	VAP Access Point	Mile Post	Platform	Gantry	HV Cable
KEY	Screening Conductor Joint with/without Earth	Status - as per Key Below	Mid Length Sheath Gap Fibre	FTN Access Node	Cabinet Routeworks	Manhole	Tunnel	PAP Pedestrian Access Point	Telephone	Platform	Cable Pull	LV Cable
Proposed Fibre & Civils Elements are shown in RED	Existing Fibre Cable	Existing Copper Cable	Sheath Gap Copper	FTN Access Node with GSM-R Colocated	Fibre Joint Routeworks	Manhole	Earth Farm	Buffer Stop	Telephone	Platform	Copper Blue Fibre	Water
Proposed Copper Elements are shown in BLUE	Existing Screen Cable	Existing Copper Cable	Manhole	FTN Access Node with GSM-R Colocated	Fibre Joint Routeworks	Manhole	Earth Farm	Buffer Stop	Telephone	Platform	Fibre Red Screen Green	AC Stanchion
Proposed Screening Elements are shown in MAGENTA			Manhole	FTN Access Node with GSM-R Colocated	Fibre Joint Routeworks	Manhole	Earth Farm	Buffer Stop	Telephone	Platform		
All Recoveries are shown in GREEN			Manhole	FTN Access Node with GSM-R Colocated	Fibre Joint Routeworks	Manhole	Earth Farm	Buffer Stop	Telephone	Platform		

Notes

Rev	Date	Description of Revisions	Drawn	Chkd	Appr
C	05.05.11	Amended As Per NWR Design Review	DA	JW	CT
B	25.11.10	Stage 2 Design - First Issue	MB	JW	CT
A	07.10.08	Amended Issue		AEL	
DA	17.09.08	1st Issue		AEL	

Contractor(s)

Unit 4 Apex Park, Wainwright Road, Worcester, Worcestershire, WR4 9FN. Tel: 01905 756000

Status: Design

Scale(s): ELR & Mileage PAA1/PAA2

Designed	Mike Bonner	Sign.	[Signature]	Date	25.11.10
Drawn	Joe Winter	Sign.	[Signature]	Date	25.11.10
Checked	Chris Tappendan	Sign.	[Signature]	Date	25.11.10
Approved		Sign.		Date	

Project: FTN / GSM-R Project Stage 2 Design

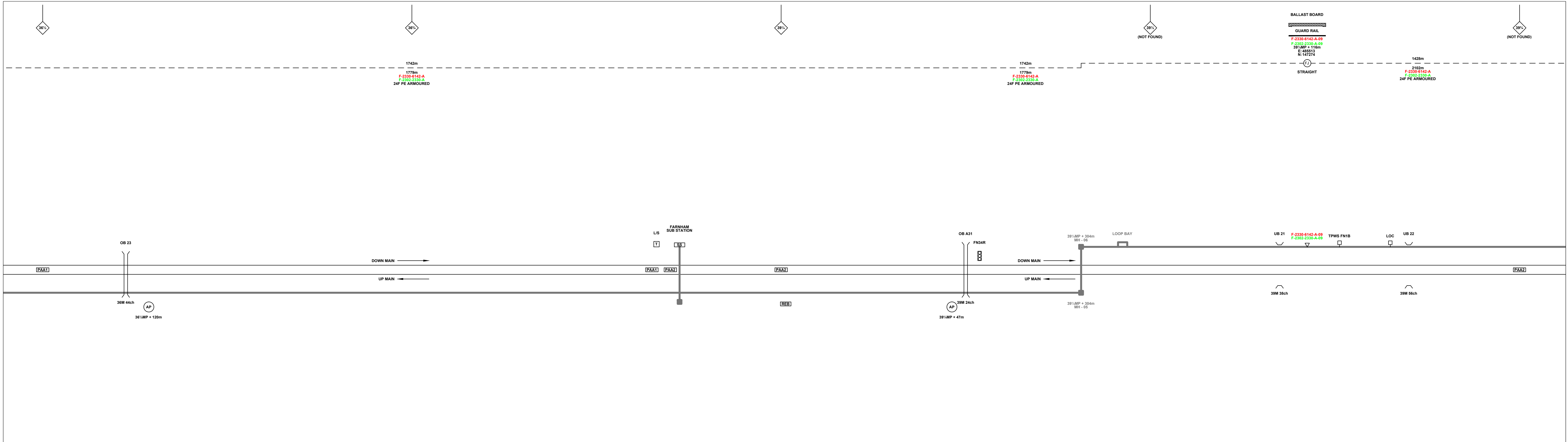
Drawing Title: Aldershot Station (2327) to Farnham Station 1 (2328)

Alternative Reference: See Layout Tab A3 Sheets 3 and 4

Drawing Number: NTPO\SLD\2327\2328\001

Sheet: 2 of 4

Revision: C



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	MLNT	Engineer's Line Reference
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	Manhole	Underbridge	VAP Access Point	Mile Post	Crossing
Screening Conductor Joint with/without Earth	1988m Cable	Status - as per Key Below	Mid Length Sheath Gap Fibre	FTN Access Node	Cabinet Routeworks	Tunnel	Earth Farm	PAP Pedestrian Access Point	Platform	Gantry
KEY	Existing Fibre Cable	Existing Copper Cable	Sheath Gap Copper	FTN Access Node with GSM-R Colocated	Fibre Joint Routeworks	Buffer Stop	Telephone	Gas Line	HV Cable	LV Cable
Proposed Fibre & Civils Elements are shown in RED	Existing Screen Cable	Copper Blue Fibre	Screen Green	AC Stanchion	Water	Cable Pull	Gas	HV	LV	Sewer
Proposed Copper Elements are shown in BLUE							TEL	SEW	Water	
Proposed Screening Elements are shown in MAGENTA							Water			
All Recoveries are shown in GREEN										

Notes

Rev	Date	Description of Revisions	Drawn	Chkd	Appr
C	05.05.11	Amended As Per NWR Design Review	DA	JW	CT
B	25.11.10	Stage 2 Design - First Issue	MB	JW	CT
A	07.10.08	Amended Issue		AEL	
DA	17.09.08	1st Issue		AEL	

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Contractor(s)

Design
ELR & Mileage
PAA1/PAA2

Status
NTS

Designed	Sign.	Date
Drawn	Sign.	Date 25.11.10
Checked	Sign.	Date 25.11.10
Approved	Sign.	Date 25.11.10

Project
FTN / GSM-R Project
Stage 2 Design

Drawing Title
Aldershot Station (2327) to
Farnham Station 1 (2328)

Network Rail

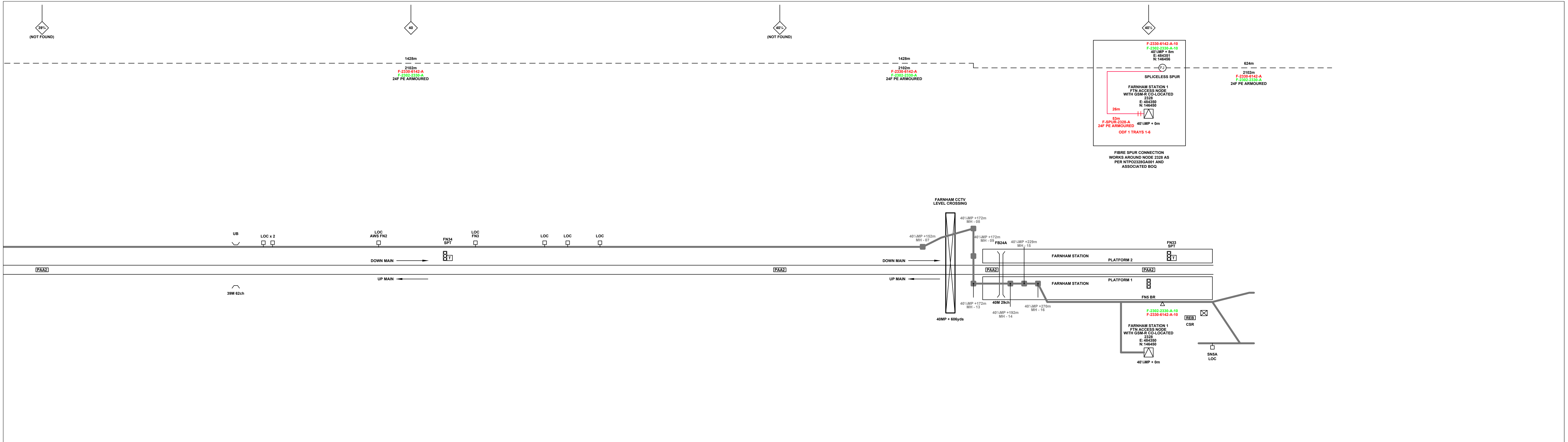
FTN/GSM-R Project
Tournament House
Pudding
London
W2 1HA

Alternative Reference
See Layout Tab A3 Sheets 5 and 6

Drawing Number
NTPO\SLD\2327\2328\001

Sheet
3 of 4

Revision
C



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		— GAS — GAS — Gas Line		— HV — HV — HV Cable		— LV — LV — LV Cable		— SEW — SEW — Sewer		— TEL — TEL — Telecoms		— W — W — Water				
	Cabinet with Regenerator and Verts		Fibre Joint		Electrical Control Room		Manhole		Core Node with GSM-R Colocated		Copper Joint Routeworks		Tunnel		Underbridge		VAP Access Point		Mile Post							Copper Blue		Fibre Red		Screen Green		AC Stanchion			
	KEY				1988m Cable - Type Identified by FTN Code		Manhole Key Status - as per Key Below		FTN Access Node		Cabinet Routeworks		Mid Length Sheath Gap Fibre		Earth Farm		Buffer Stop		Telephone							Copper		Sheath Gap Copper		FTN Access Node with GSM-R Colocated					
	Proposed Fibre & Civils Elements are shown in RED				All Existing Elements are shown in BLACK																														
	Proposed Copper Elements are shown in BLUE				Existing Fibre Cable																														
	Proposed Screening Elements are shown in MAGENTA				Existing Copper Cable																														
	All Recoveries are shown in GREEN				Existing Screen Cable																														

Notes

C	05.05.11	Amended As Per NWR Design Review	DA	JW	CT
B	25.11.10	Stage 2 Design - First Issue	MB	JW	CT
A	07.10.08	Amended Issue		AEL	
DA	17.09.08	1st Issue		AEL	
Rev	Date	Description of Revisions	Drawn	Chkd	Appr

Contractor(s)

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Status Design

Scale(s) ELR & Mitage PAA1/PAA2

Notes

C	05.05.11	Amended As Per NWR Design Review	DA	JW	CT
B	25.11.10	Stage 2 Design - First Issue	MB	JW	CT
A	07.10.08	Amended Issue		AEL	
DA	17.09.08	1st Issue		AEL	
Rev	Date	Description of Revisions	Drawn	Chkd	Appr

Designed	Mike Bonner	Sign.		Date	25.11.10
Drawn	Joe Winter	Sign.		Date	25.11.10
Checked	Chris Tappandan	Sign.		Date	25.11.10
Approved		Sign.		Date	

Project FTN / GSM-R Project Stage 2 Design

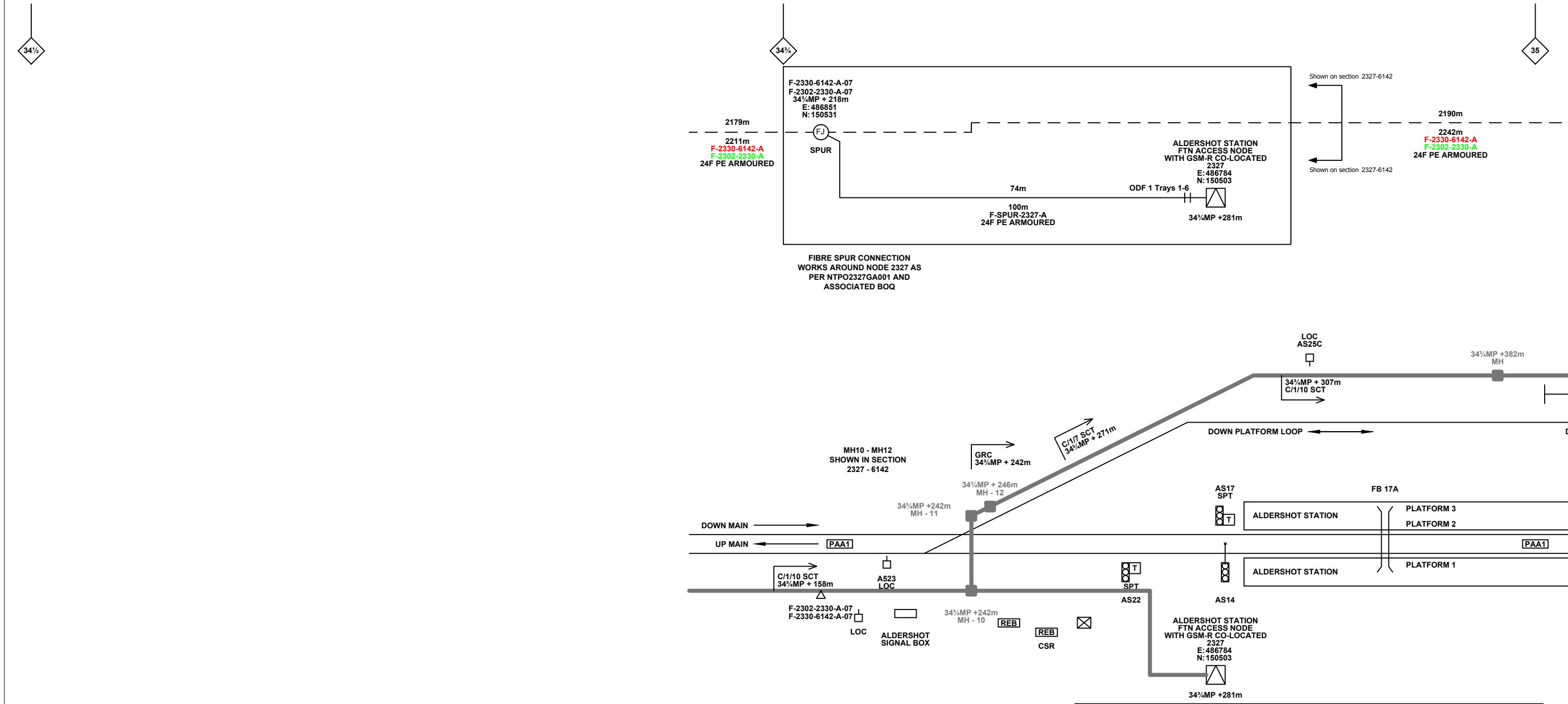
Drawing Title Aldershot Station (2327) to Farnham Station 1 (2328)

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

Alternative Reference: See Layout Tab A3 Sheets 7 and 8

Drawing Number: NTPO\SLD\2327\2328\001

Sheet: 4 of 4
Revision: C



FIBRE SPUR CONNECTION WORKS AROUND NODE 2327 AS PER NTPO2327GA001 AND ASSOCIATED BOQ

2327 to 2328 Intermediate Works Bill of Quantities			
7.359	Renumbr Fibre Joint	each	2
7.373	Rename Cable (Fibre)	each	1

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 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 — HV — HV Cable
KEY	Screening Conductor Joint with/without Earth	Status - as per Key Below	Manhole	FTN Access Node	Cabinet Routeworks	Manhole details: Cross-To be used Filled-In use Clear-Empty	Pedestrian Access Point	Platform	W — W — Water	Cable Pull
Proposed Fibre & Civils Elements are shown in RED		All Existing Elements are shown in BLACK	Mid Length Sheath Gap Fibre	FTN Access Node with GSM-R Colocated	Fibre Joint Routeworks	Tunnel	Earth Farm	Buffer Stop	Telephone	AC Stanchion
Proposed Copper Elements are shown in BLUE		Existing Fibre Cable	Sheath Gap Copper							
Proposed Screening Elements are shown in MAGENTA		Existing Copper Cable								
All Recoveries are shown in GREEN		Existing Screen Cable								

Rev	Date	Description of Revisions	Drawn	Chkd	Appr
C	05.05.11	Amended As Per NWR Design Review	DA	JW	CT
B	25.11.10	Stage 2 Design - First Issue	MB	JW	CT
A	07.10.08	Amended Issue		AEL	
DA	17.09.08	1st Issue		AEL	

Contractor(s)

Unit 4 Apex Park, Wainwright Road, Worcester, Worcestershire, WR4 9FN. Tel: 01905 756000

Status: **Design**

Scale(s): NTS

ELR & Mileage: PAA1/PAA2

Designated	Sign.	Date
Drawn	Mike Bonner	25.11.10
Checked	Joe Winter	25.11.10
Approved	Chris Tappendan	25.11.10

Project: **FTN / GSM-R Project Stage 2 Design**

Drawing Title: **Aldershot Station (2327) to Farnham Station 1 (2328)**

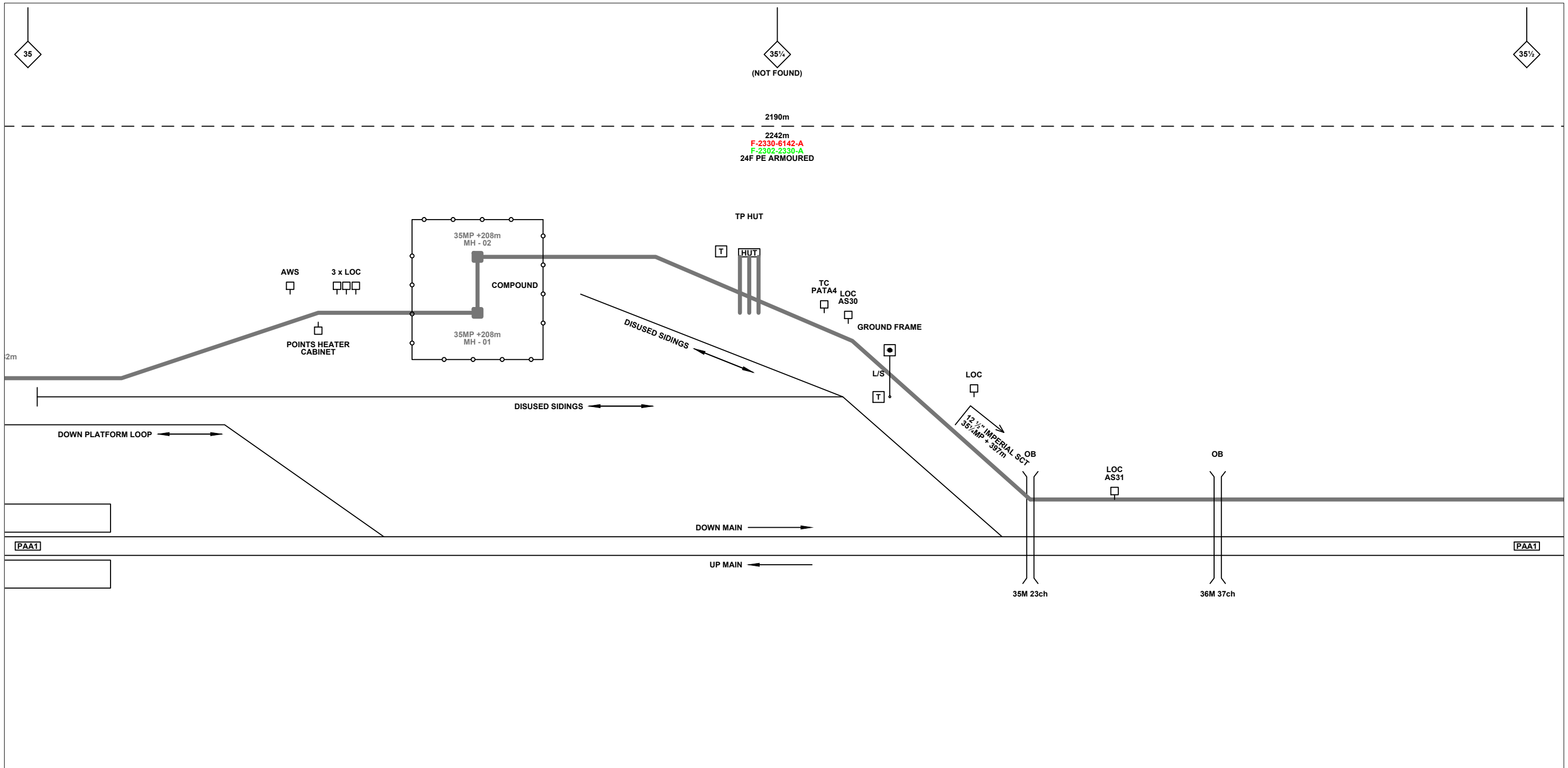
FTN/GSM-R Project
Tournament House
Paddington
London
W2 1HA

Alternative Reference: See Layout Tab 841 x 297 Sheet 1

Drawing Number: NTPO\SLD\2327\2328\001

Sheet: 1 of 8

Revision: C



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	Manhole	FTN Access Node	Cabinet Routeworks	Tunnel	Pedestrian Access Point	Platform	Sewer	Telecoms
Proposed Fibre & Civils Elements are shown in RED		Mid Length Sheath Gap Fibre	Sheath Gap Copper	FTN Access Node with GSM-R Colocated	Fibre Joint Routeworks	Earth Farm	Buffer Stop	Telephone	Water	AC Stanchion
Proposed Copper Elements are shown in BLUE		Existing Fibre Cable								
Proposed Screening Elements are shown in MAGENTA		Existing Copper Cable								
All Recoveries are shown in GREEN		Existing Screen Cable								

Notes

C	05.05.11	Amended As Per NWR Design Review	DA	JW	CT
B	25.11.10	Stage 2 Design - First Issue	MB	JW	CT
A	07.10.08	Amended Issue		AEL	
DA	17.09.08	1st Issue		AEL	
Rev	Date	Description of Revisions	Drawn	Chkd	Appr

Contractor(s)

Unit 4 Apex Park, Wainwright Road, Worcester, Worcestershire, WR4 9FN. Tel: 01905 756000

Status: **Design**

Scale(s): NTS

ELR & Mileage: PAA1/PAA2

Designed	Sign.	Date
Drawn	Sign.	Date 25.11.10
Checked	Sign.	Date 25.11.10
Approved	Sign.	Date 25.11.10
Project: FTN / GSM-R Project Stage 2 Design		
Drawing Title: Aldershot Station (2327) to Farnham Station 1 (2328)		

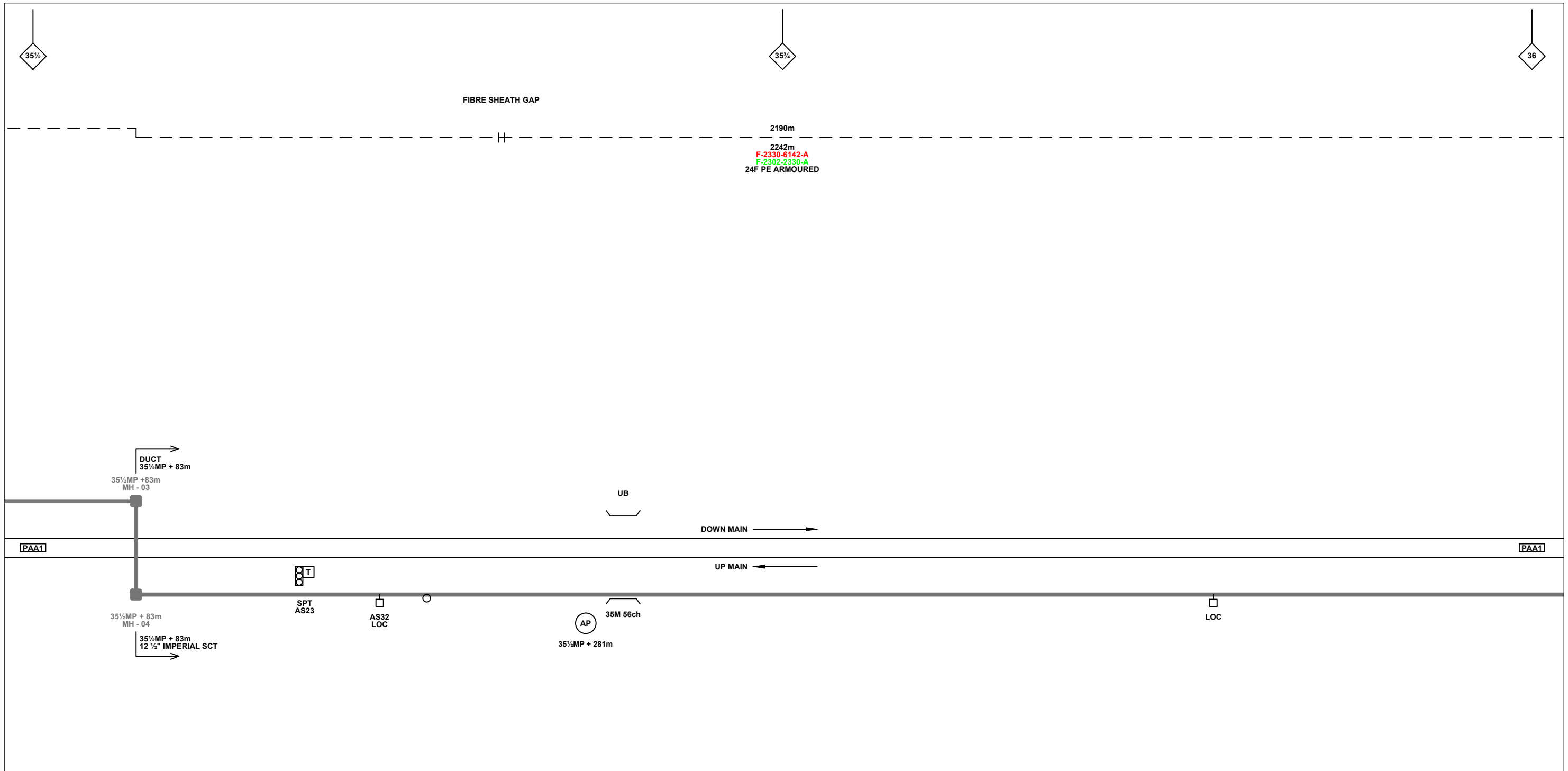
FTN/GSM-R Project
Tournament House
Paddington
London
W2 1HA

Alternative Reference: See Layout Tab 841 x 297 Sheet 1

Drawing Number: NTPO\SLD\2327\2328\001

Sheet: 2 of 8

Revision: C



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 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	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 Filled-In use Clear-Empty	Pedestrian Access Point	Platform	LV	LV	LV Cable	
Proposed Fibre & Civils Elements are shown in RED	Status - as per Key Below	Sheath Gap Copper	FTN Access Node with GSM-R Colocated	Fibre Joint Routeworks	Tunnel	Earth Farm	Buffer Stop	Telephone	SEW	SEW	Sewer	
Proposed Copper Elements are shown in BLUE	Existing Fibre Cable	Existing Copper Cable	Existing Screen Cable	Cable Pull	Copper Blue Fibre Red Screen Green	AC Stanchion			TEL	TEL	Telecoms	
Proposed Screening Elements are shown in MAGENTA									W	W	Water	
All Recoveries are shown in GREEN												

Notes

C	05.05.11	Amended As Per NWR Design Review	DA	JW	CT
B	25.11.10	Stage 2 Design - First Issue	MB	JW	CT
A	07.10.08	Amended Issue		AEL	
DA	17.09.08	1st Issue		AEL	
Rev	Date	Description of Revisions	Drawn	Chkd	Appr

Contractor(s)

Unit 4 Apex Park, Wainwright Road, Worcester, Worcestershire, WR4 9FN. Tel: 01905 756000

Status: **Design**

Scale(s): NTS

ELR & Mileage: PAA1/PAA2

Designed	Sign.	Date
Drawn	Sign.	Date 25.11.10
Checked	Sign. <i>M.L.</i>	Date 25.11.10
Approved	Sign. <i>Chris Tappendan</i>	Date 25.11.10
Project	FTN / GSM-R Project Stage 2 Design	
Drawing Title	Aldershot Station (2327) to Farnham Station 1 (2328)	

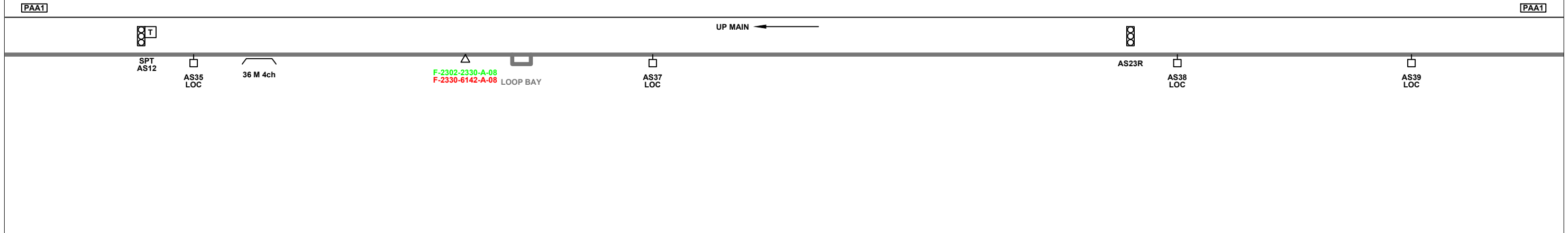
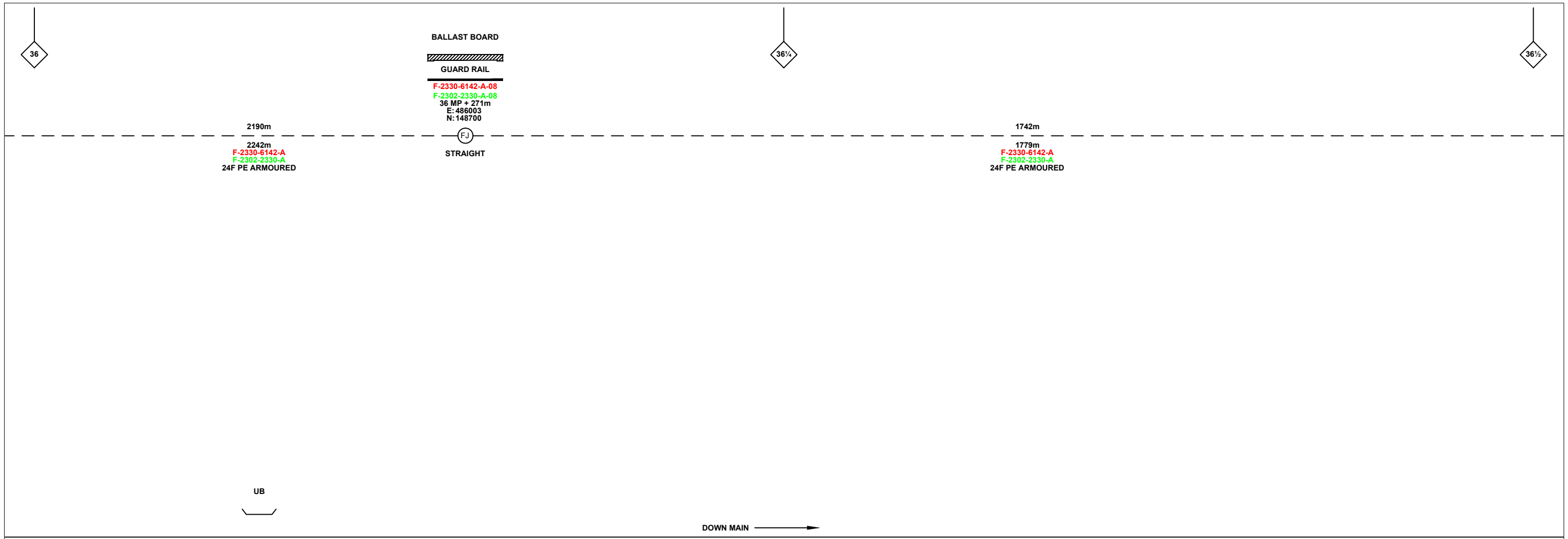
FTN/GSM-R Project
Tournament House
Paddington
London
W2 1HA

Alternative Reference: See Layout Tab 841 x 297 Sheet 2

Drawing Number: NTPO\SLD\2327\2328\001

Sheet: 3 of 8

Revision: C



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 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	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 Filled-In use Clear-Empty	Pedestrian Access Point	Platform	LV	LV	LV Cable	
Proposed Fibre & Civils Elements are shown in RED	Status - as per Key Below	Sheath Gap Copper	FTN Access Node with GSM-R Colocated	Fibre Joint Routeworks	Tunnel	Earth Farm	Buffer Stop	Telephone	SEW	SEW	Sewer	
Proposed Copper Elements are shown in BLUE	Existing Fibre Cable	Existing Copper Cable	Existing Screen Cable	Cable Pull	Copper Blue Fibre Red Screen Green	AC Stanchion			TEL	TEL	Telecoms	
Proposed Screening Elements are shown in MAGENTA									W	W	Water	
All Recoveries are shown in GREEN												

Rev	Date	Description of Revisions	Drawn	Chkd	Appr
C	05.05.11	Amended As Per NWR Design Review	DA	JW	CT
B	25.11.10	Stage 2 Design - First Issue	MB	JW	CT
A	07.10.08	Amended Issue		AEL	
DA	17.09.08	1st Issue		AEL	

Contractor(s)

Unit 4 Apex Park, Wainwright Road, Worcester, Worcestershire, WR4 9FN. Tel: 01905 756000

Status: **Design**

Scale(s): NTS

ELR & Mileage: PAA1/PAA2

Designed	Sign.	Date
Drawn	Sign.	Date 25.11.10
Checked	Sign. <i>M.L.</i>	Date 25.11.10
Approved	Sign. <i>Chris Tappendan</i>	Date 25.11.10
Project: FTN / GSM-R Project Stage 2 Design		
Drawing Title: Aldershot Station (2327) to Farnham Station 1 (2328)		

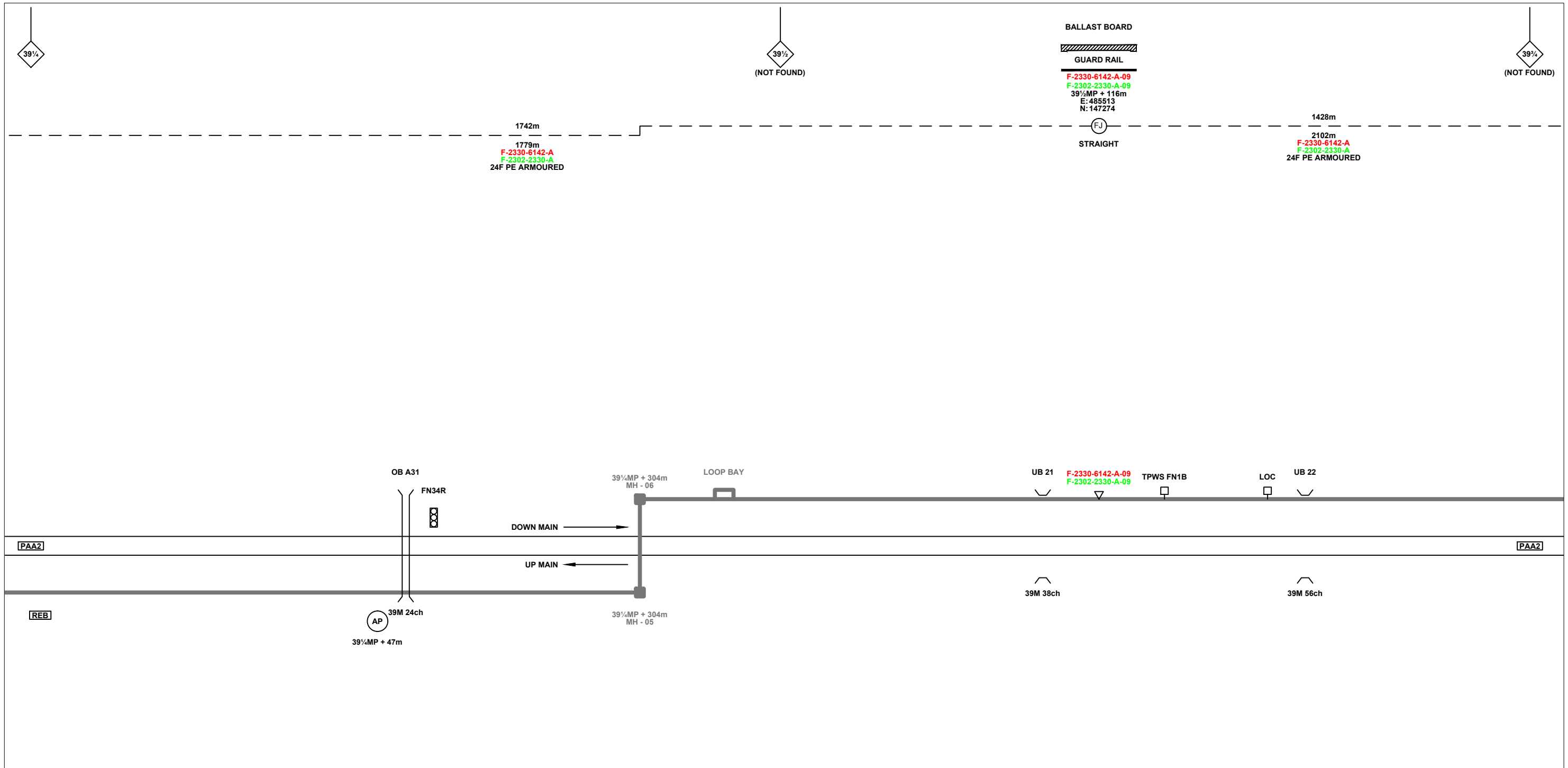
FTN/GSM-R Project
Tournament House
Paddington
London
W2 1HA

Alternative Reference: See Layout Tab 841 x 297 Sheet 2

Drawing Number: NTPO\SLD\2327\2328\001

Sheet: 4 of 8

Revision: C



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	MLN1 Engineer's Line Reference	Crossing	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	Tunnel	Underbridge	VAP Vehicle Access Point	Mile Post	Gantry	HV — HV — HV Cable
KEY	Screening Conductor Joint with/without Earth	2034m F-DIDC-RGAC-A	Manhole	FTN Access Node	Cabinet Routeworks	Earth Farm	PAP Pedestrian Access Point	Platform	Telephone	SEW — SEW — Sewer	LV — LV — LV Cable
Proposed Fibre & Civils Elements are shown in RED			Mid Length Sheath Gap Fibre	FTN Access Node with GSM-R Colocated	Fibre Joint Routeworks	Buffer Stop	Cable Pull	AC Stanchion		TEL — TEL — Telecoms	W — W — Water
Proposed Copper Elements are shown in BLUE			Sheath Gap Copper								
Proposed Screening Elements are shown in MAGENTA											
All Recoveries are shown in GREEN											

Notes

C	05.05.11	Amended As Per NWR Design Review	DA	JW	CT
B	25.11.10	Stage 2 Design - First Issue	MB	JW	CT
A	07.10.08	Amended Issue		AEL	
DA	17.09.08	1st Issue		AEL	
Rev	Date	Description of Revisions	Drawn	Chkd	Appr

Contractor(s)

Unit 4 Apex Park, Wainwright Road, Worcester, Worcestershire, WR4 9FN. Tel: 01905 756000

Status: **Design**

Scale(s): NTS

ELR & Mileage: PAA1/PAA2

Designed	Sign.	Date
Drawn	Sign.	Date 25.11.10
Checked	Sign.	Date 25.11.10
Approved	Sign.	Date 25.11.10
Project: FTN / GSM-R Project Stage 2 Design		
Drawing Title: Aldershot Station (2327) to Farnham Station 1 (2328)		

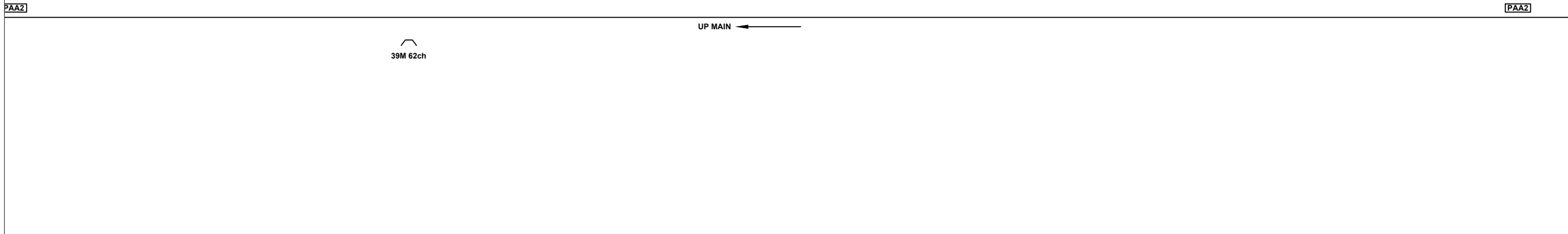
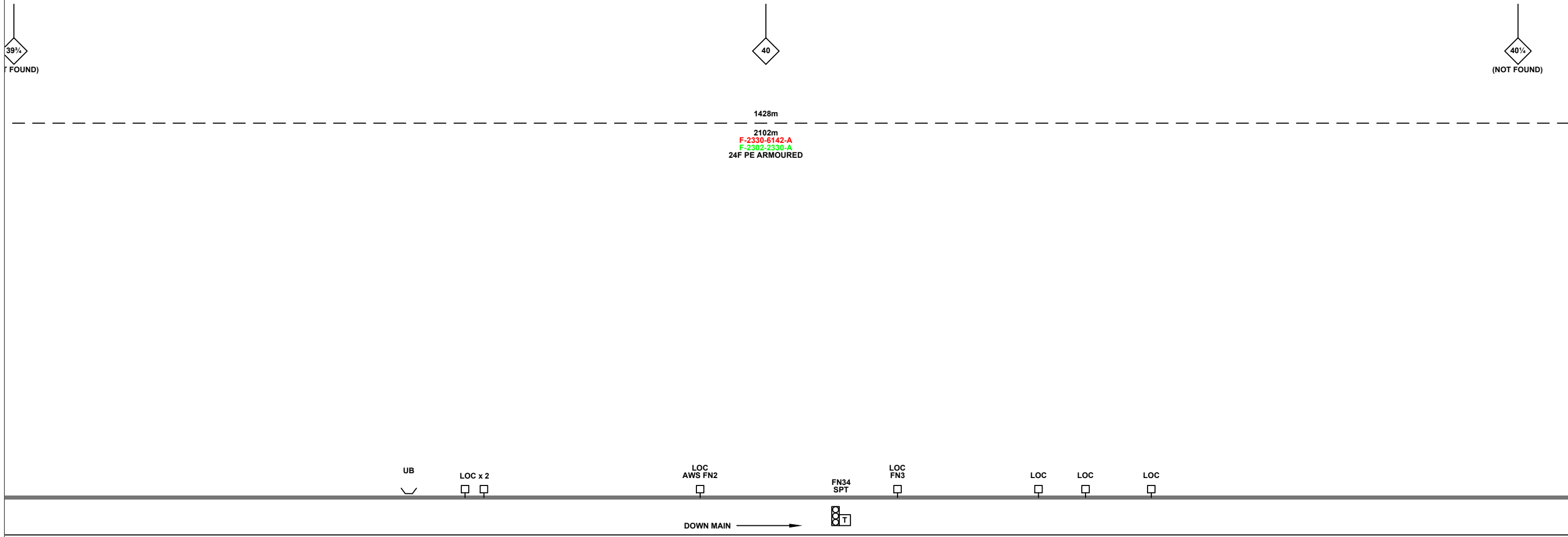
FTN/GSM-R Project
Tournament House
Paddington
London
W2 1HA

Alternative Reference: See Layout Tab 841 x 297 Sheet 3

Drawing Number: NTPO\SLD\2327\2328\001

Sheet: 6 of 8

Revision: C



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 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	Manhole	VAP	Mile Post	HV — HV — HV Cable	LV — LV — LV Cable
KEY	Screening Conductor Joint with/without Earth	Status - as per Key Below	Mid Length Sheath Gap Fibre	FTN Access Node	Cabinet Routeworks	Sheath Gap Copper	PAP	Platform	SEW — SEW — Sewer	TEL — TEL — Telecoms
Proposed Fibre & Civils Elements are shown in RED		All Existing Elements are shown in BLACK	Tunnel	FTN Access Node with GSM-R Colocated	Fibre Joint Routeworks		Earth Farm	Buffer Stop	W — W — Water	AC Stanchion
Proposed Copper Elements are shown in BLUE		Existing Fibre Cable	Manhole details: Cross-To be used Filled-In use Clear-Empty							
Proposed Screening Elements are shown in MAGENTA		Existing Copper Cable								
All Recoveries are shown in GREEN		Existing Screen Cable								

Notes

Rev	Date	Amended As Per NWR Design Review	Chk	Chk	Chk
B	05.05.11	Stage 2 Design - First Issue	MB	JW	CT
A	07.10.08	Amended Issue		AEL	
DA	17.09.08	1st Issue		AEL	

Contractor(s)

Unit 4 Apex Park, Wainwright Road, Worcester, Worcestershire, WR4 9FN. Tel: 01905 756000

Status: **Design**

Scale(s): NTS

ELR & Mileage: PAA1/PAA2

Designed	Sign.	Date
Drawn	Sign.	Date 25.11.10
Checked	Sign.	Date 25.11.10
Approved	Sign.	Date 25.11.10
Project: FTN / GSM-R Project Stage 2 Design		
Drawing Title: Aldershot Station (2327) to Farnham Station 1 (2328)		

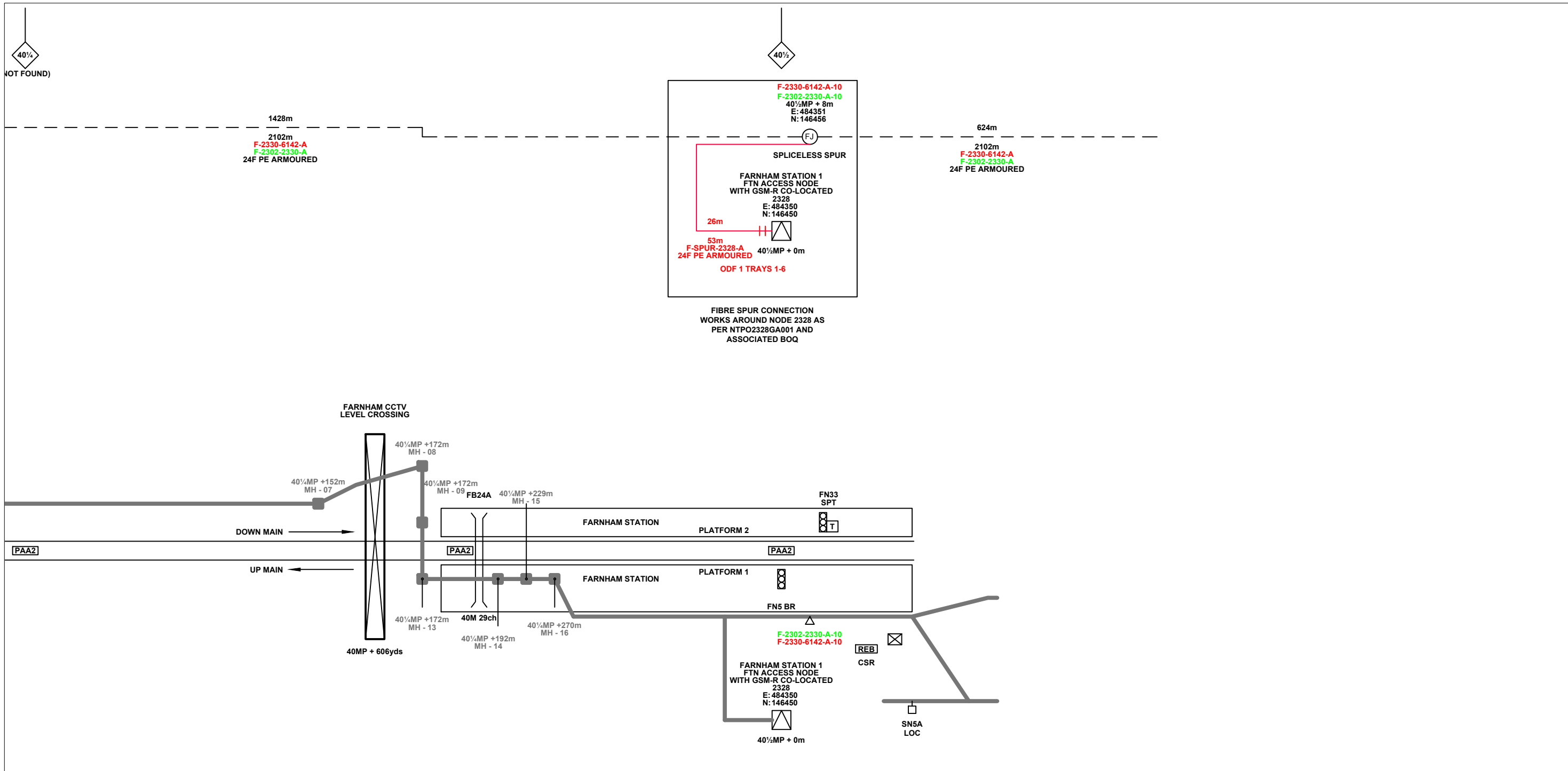
FTN/GSM-R Project
Tournament House
Paddington
London
W2 1HA

Alternative Reference: See Layout Tab 841 x 297 Sheet 4

Drawing Number: NTPO\SLD\2327\2328\001

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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 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	HV Cable
KEY			Screening Conductor Joint with/without Earth		Manhole		Mid Length Sheath Gap Fibre		FTN Access Node		Cabinet Routeworks		Tunnel		Pedestrian Access Point				Platform		LV	LV Cable
					Sheath Gap Copper		FTN Access Node with GSM-R Colocated		Fibre Joint Routeworks		Earth Farm		Buffer Stop		Telephone		Cable Pull				SEW	Sewer
																					TEL	Telecoms
																					W	Water
																					AC Stanchion	

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

All Existing Elements are shown in BLACK
 Existing Fibre Cable
 Existing Copper Cable
 Existing Screen Cable

Notes

C	05.05.11	Amended As Per NWR Design Review	DA	JW	CT
B	25.11.10	Stage 2 Design - First Issue	MB	JW	CT
A	07.10.08	Amended Issue		AEL	
DA	17.09.08	1st Issue		AEL	
Rev	Date	Description of Revisions	Drawn	Chkd	Appr

Contractor(s)

Unit 4 Apex Park, Wainwright Road, Worcester, Worcestershire, WR4 9FN. Tel: 01905 756000

Status: **Design**

Scale(s): NTS

ELR & Mileage: PAA1/PAA2

Designed	Sign.	Date
Drawn	Sign.	Date 25.11.10
Checked	Sign. <i>M.L.</i>	Date 25.11.10
Approved	Sign. <i>Chris Tappendan</i>	Date 25.11.10
Project: FTN / GSM-R Project Stage 2 Design		
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Revision: **C**

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