

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	Tunnel	Pedestrian Access Point	Platform	LV Cable
	Existing Fibre Cable	Existing Copper Cable	Existing Screen Cable	FTN Access Node with GSM-R Colocated	Fibre Joint Routeworks	Earth Farm	Buffer Stop	Telephone	Sewer
						AC Stanchion			Water

Notes

Rev	Date	Description of Revisions	Drawn	Chkd	Appr	Status
DA	03/02/2009	1st Issue	MT	AEL	SW	Design
DB	22/10/2009	2nd Issue	MT	AEL	SW	Design
A	16/11/2009	Final Issue	MT	AEL	SW	Design
B	15/12/2010	1st Issue - Stage 2 Design	DA	JW	CT	Design

ndc consultants
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Design
ELR & Mileage
BML2 & RTJ1

Designed	Michal Taraj	Sign.		Date	03/02/2009
Drawn	Michal Taraj	Sign.		Date	03/02/2009
Checked	Alan Littlefair	Sign.		Date	03/02/2009
Approved	Steve Witt	Sign.		Date	03/02/2009

FTN / GSM-R Project Stage 2 Design

Totton Station (1128) to Millbrook (1129)

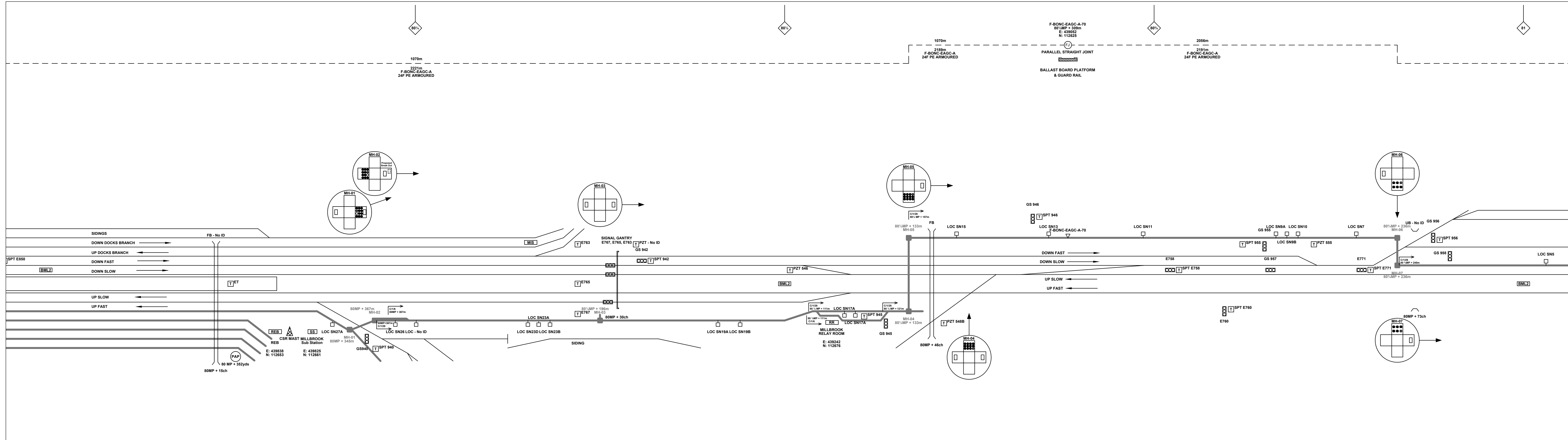
Network Rail

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

Alternative Reference: See Layout Tab A3 Sheets 1 and 2

Drawing Number: NTP0\SLD\1128\1129\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		Manhole details: Cross - To be used Filled - In use Clear - Empty		Overbridge		Signal		Engineer's Line Reference		Crossing		Gas Line		Mile Post		HV Cable		Sewer		Telecoms		Water		AC Stanchion				
	Cabinet with Regenerator and Verts		Fibre Joint		Electrical Control Room		Core Node with GSM-R Colocated		Copper Joint Routeworks		Cabinet Routeworks		Tunnel		Underbridge		Vehicle Access Point		Pedestrian Access Point		Platform		Copper Blue		Fibre Red		Screen Green		HV Cable		LV Cable		Sewer		Telecoms		Water		AC Stanchion

Notes

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DA	03/02/2009	1st Issue	MT	AEL	SW	Design
DB	22/10/2009	2nd Issue	MT	AEL	SW	Design
A	16/11/2009	Final Issue	MT	AEL	SW	Design
B	15/12/2010	1st Issue - Stage 2 Design	DA	JW	CT	Design

Contractor(s)

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

Design

Scale(s): ELR & Mileage
BML2 & RTJ1

Designed	Michal Taraj	Sign.		Date	03/02/2009
Drawn	Michal Taraj	Sign.		Date	03/02/2009
Checked	Alan Littlefair	Sign.		Date	03/02/2009
Approved	Steve Witt	Sign.		Date	03/02/2009

Project

FTN / GSM-R Project
Stage 2 Design

Drawing Title

Totton Station (1128) to
Millbrook (1129)

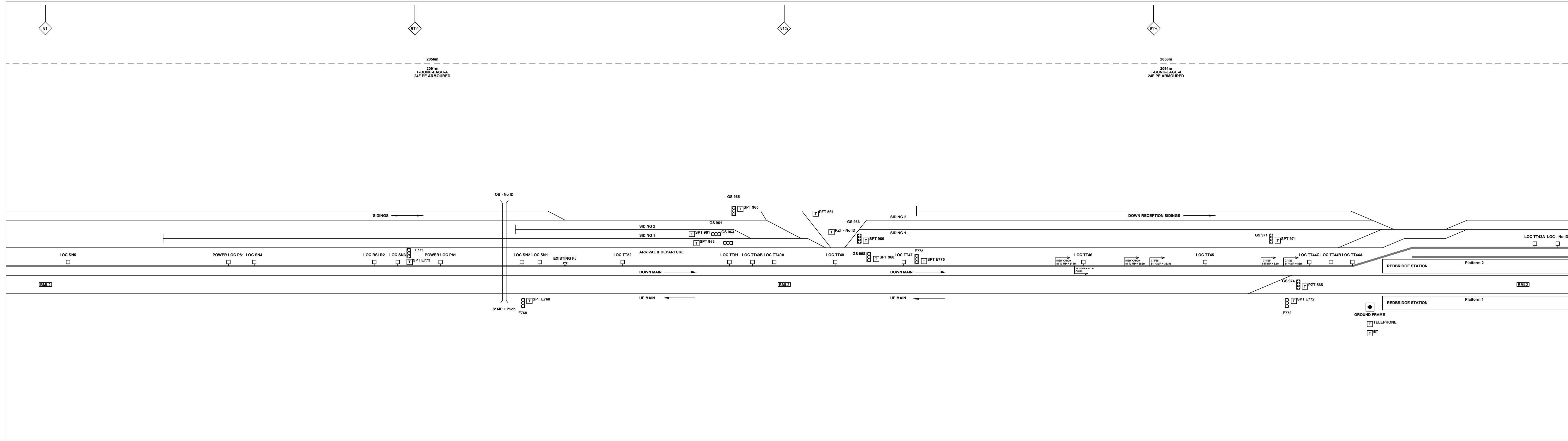
FTN/GSM-R Project
Tottenham House
Paddington
London
W2 1HA

Alternative Reference: See Layout Tab A3 Sheets 3 and 4

Drawing Number: NTP0\SLD\1128\1129\001

Sheet: 2 of 4
Revision: B

Sheet Size 841x297



Legend

Cabinet and Verts	Copper Joint	Trough Duct Cable Tray	Signal Box	FTN Core Node	Screen Joint Routeworks	Manhole	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	Mid Length Sheath Gap Fibre	Underbridge	Vehicle Access Point	Mile Post	HV Cable
Screening Conductor Joint with/without Earth	1988m Cable - as per Key Below	2034m F-DIDC-RGAC-A Cable - as per Key Below	Manhole	FTN Access Node	Cabinet Routeworks	Sheath Gap Copper	Tunnel	Pedestrian Access Point	Platform	LV Cable
KEY	All Existing Elements are shown in BLACK	Existing Fibre Cable	Manhole details: Cross-To be used Filled-In use Clear-Empty	FTN Access Node with GSM-R Colocated	Fibre Joint Routeworks	Earth Farm	Buffer Stop	Telephone	Crossing	Sewer
Proposed Fibre & Civils Elements are shown in RED	Existing Copper Cable	Existing Screen Cable	Tunnel	AC Stanchion	Cable Pull	Copper Blue Fibre Red Screen Green	Gantry	Telephone	Water	AC Stanchion
Proposed Copper Elements are shown in BLUE										
Proposed Screening Elements are shown in MAGENTA										
All Recoveries are shown in GREEN										

Notes

Rev	Date	Description of Revisions	Drawn	Chkd	Appr	Status
DA	03/02/2009	1st Issue	MT	AEL	SW	Design
DB	22/10/2009	2nd Issue	MT	AEL	SW	Design
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B	15/12/2010	1st Issue - Stage 2 Design	DA	JW	CT	Design

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Contractor(s): NTS

Scale(s): BML2 & RTJ1

Designed	Michal Taraj	Sign.	Date	03/02/2009
Drawn	Michal Taraj	Sign.	Date	03/02/2009
Checked	Alan Littlefair	Sign.	Date	03/02/2009
Approved	Steve Witt	Sign.	Date	03/02/2009

FTN / GSM-R Project Stage 2 Design

Drawing Title: Totton Station (1128) to Millbrook (1129)

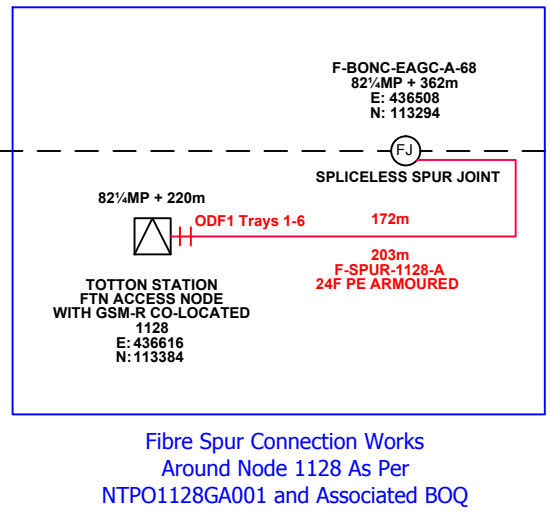
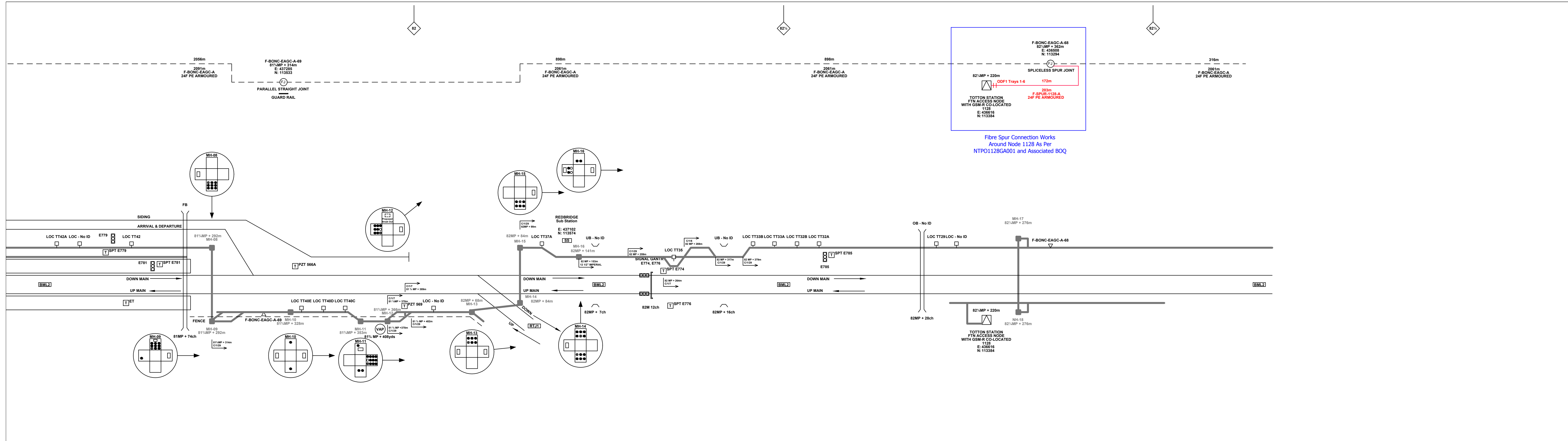
Network Rail

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

Alternative Reference: See Layout Tab A3 Sheets 5 and 6

Drawing Number: NTP0\SLD\1128\1129\001

Sheet: 3 of 4
 Revision: B



Legend

Cabinet and Verts	Copper Joint	Trough Duct Cable Tray	Signal Box	FTN Core Node	Screen Joint Routeworks	Manhole	Overbridge	Signal	Engineer's Line Reference
Cabinet with Regenerator and Verts	Fibre Joint	Cable Type 1988m	Electrical Control Room	Core Node with GSM-R Colocated	Copper Joint Routeworks	Mid Length Sheath Gap Fibre	Underbridge	Vehicle Access Point	Mile Post
Proposed Fibre & Civils Elements are shown in RED	Proposed Copper Elements are shown in BLUE	All Existing Elements are shown in BLACK	Manhole	FTN Access Node	Cabinet Routeworks	Sheath Gap Copper	Tunnel	Pedestrian Access Point	Platform
Proposed Screening Elements are shown in MAGENTA	Existing Fibre Cable	Existing Copper Cable	FTN Access Node with GSM-R Colocated	Fibre Joint Routeworks	Telephone	Earth Farm	Gas Line	HV Cable	LV Cable
All Recoveries are shown in GREEN	Existing Screen Cable	F-DICD-RGAC-A	FTN Access Node with GSM-R Colocated	Fibre Joint Routeworks	Telephone	Earth Farm	Sewer	TEL	Water

Notes

Rev	Date	Description of Revisions	Drawn	Chkd	Appr	Status
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DB	22/10/2009	2nd Issue	MT	AEL	SW	Design
A	16/11/2009	Final Issue	MT	AEL	SW	Design
B	15/12/2010	1st Issue - Stage 2 Design	DA	JW	CT	Design

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Design
ELR & Mileage
BML2 & RTJ1

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Approved	Steve Witt	Sign.		Date	03/02/2009

FTN / GSM-R Project Stage 2 Design

Totton Station (1128) to Millbrook (1129)

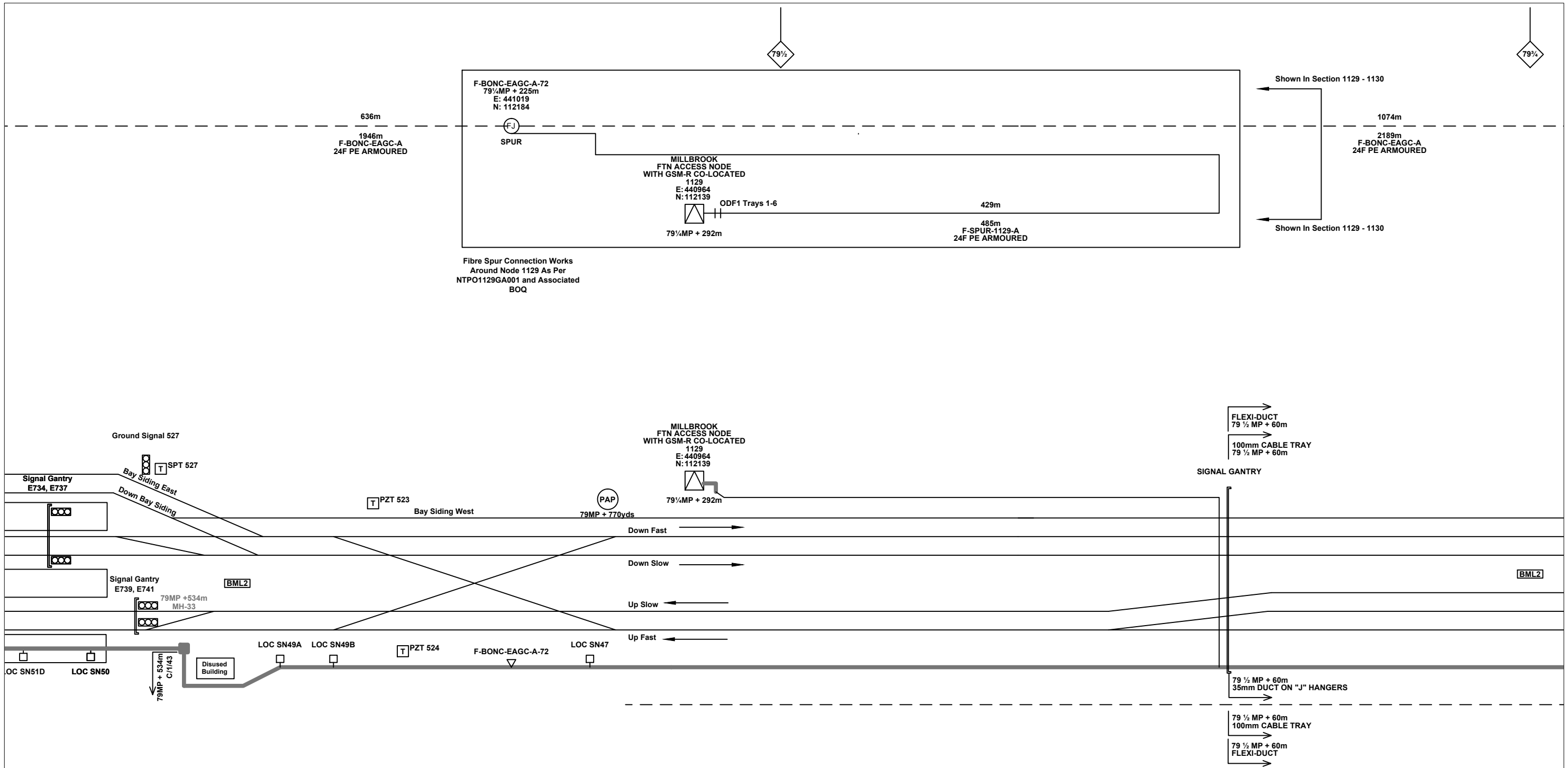
Network Rail

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Tottenham House
Passington
London
W2 1HA

Alternative Reference: See Layout Tab A3 Sheets 7 and 8

Drawing Number: NTP01\SLD\1128\1129\001

Sheet: 4 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 — 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	TEL — TEL — Telecoms	W — W — Water
Proposed Fibre & Civils Elements are shown in RED	Existing Fibre Cable	Existing Copper Cable	Mid Length Sheath Gap Fibre	FTN Access Node with GSM-R Colocated	Fibre Joint Routeworks	Tunnel	Earth Farm	Buffer Stop	Telephone	Copper Blue, Fibre Red, Screen Green
Proposed Copper Elements are shown in BLUE	Existing Screen Cable	Sheath Gap Copper	Sheath Gap Fibre	FTN Core Node with GSM-R Colocated	Copper Joint Routeworks	Manhole details: Cross-To be used, Filled-In use, Clear-Empty	Earth Farm	Buffer Stop	Telephone	AC Stanchion
Proposed Screening Elements are shown in MAGENTA	Existing Screen Cable	Sheath Gap Copper	Sheath Gap Fibre	FTN Core Node with GSM-R Colocated	Copper Joint Routeworks	Manhole details: Cross-To be used, Filled-In use, Clear-Empty	Earth Farm	Buffer Stop	Telephone	AC Stanchion
All Recoveries are shown in GREEN	Existing Screen Cable	Sheath Gap Copper	Sheath Gap Fibre	FTN Core Node with GSM-R Colocated	Copper Joint Routeworks	Manhole details: Cross-To be used, Filled-In use, Clear-Empty	Earth Farm	Buffer Stop	Telephone	AC Stanchion

Notes

Rev	Date	Description of Revisions	Drawn	Chkd	Appr
DA	03/02/2009	1st Issue	MT	AEL	SW
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A	16/11/2009	Final Issue	MT	AEL	SW
B	15/12/2010	1st Issue - Stage 2 Design	DA	JW	CT

Contractor(s)

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

Status: **Design**

Scale(s): NTS

ELR & Mileage: BML2 & RTJ1

Designed	Michal Taraj	Sign.	Date	03/02/2009
Drawn	Michal Taraj	Sign.	Date	03/02/2009
Checked	Alan Littlefair	Sign.	Date	03/02/2009
Approved	Steve Witt	Sign.	Date	03/02/2009
Project	FTN / GSM-R Project Stage 2 Design			
Drawing Title	Totton Station (1128) to Millbrook (1129)			

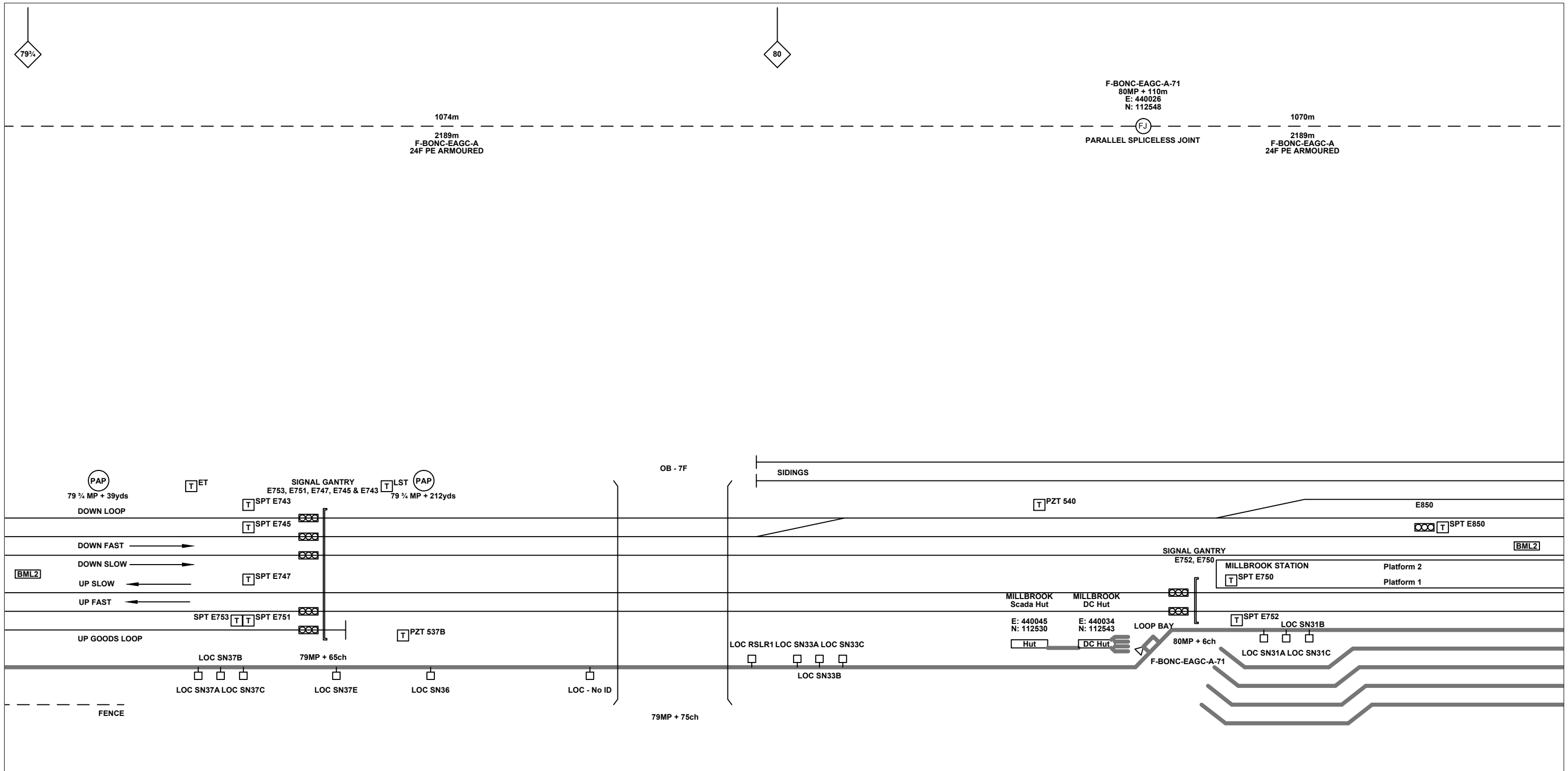
FTN/GSM-R Project
Tottenham House
Paddington
London
W2 1HA

Alternative Reference: See Layout Tab 841 x 297 Sheet 1

Drawing Number: NTPO\SLD\1128\1129\001

Sheet: 1 of 8

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 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	Manhole	Mid Length Sheath Gap Fibre	FTN Access Node	Cabinet Routeworks	Tunnel	Pedestrian Access Point	Platform	— v — v — Water	Copper Blue Fibre Red Screen Green
Proposed Fibre & Civils Elements are shown in RED										AC Stanchion
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

Rev	Date	Description of Revisions	Drawn	Chkd	Appr
DA	03/02/2009	1st Issue	MT	AEL	SW
DB	22/10/2009	2nd Issue	MT	AEL	SW
A	16/11/2009	Final Issue	MT	AEL	SW
B	15/12/2010	1st Issue - Stage 2 Design	DA	JW	CT

Contractor(s)

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

Status: **Design**

Scale(s): NTS

ELR & Mileage: BML2 & RTJ1

Designed	Michal Taraj	Sign.	Date	03/02/2009
Drawn	Michal Taraj	Sign.	Date	03/02/2009
Checked	Alan Littlefair	Sign.	Date	03/02/2009
Approved	Steve Witt	Sign.	Date	03/02/2009
Project	FTN / GSM-R Project Stage 2 Design			
Drawing Title	Totton Station (1128) to Millbrook (1129)			

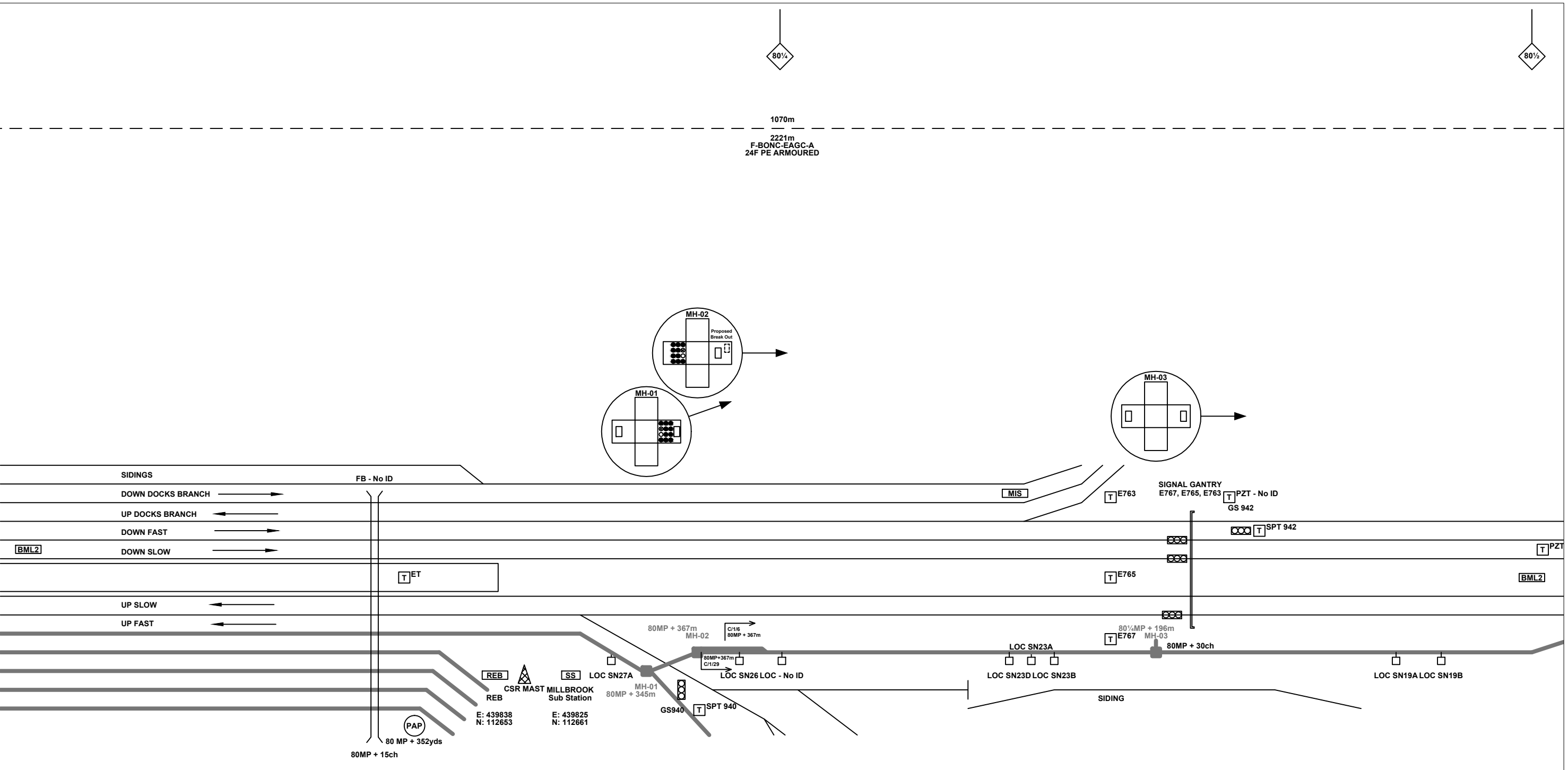
FTN/GSM-R Project
Tottenham House
Paddington
London
W2 1HA

Alternative Reference: See Layout Tab 841 x 297 Sheet 1

Drawing Number: NTPO\SLD\1128\1129\001

Revision: **B**

Sheet: 2 of 8



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	HV Cable	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	LV Cable	LV Cable
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	Sewer	Sewer
Proposed Copper Elements are shown in BLUE		Existing Fibre Cable	Sheath Gap Copper				Telephone	Cable Pull	Telecoms	Telecoms
Proposed Screening Elements are shown in MAGENTA		Existing Copper Cable						AC Stanchion	Water	Water
All Recoveries are shown in GREEN		Existing Screen Cable								

Notes

Rev	Date	Description of Revisions	Drawn	Chkd	Appr
DA	03/02/2009	1st Issue	MT	AEL	SW
DB	22/10/2009	2nd Issue	MT	AEL	SW
A	16/11/2009	Final Issue	MT	AEL	SW
B	15/12/2010	1st Issue - Stage 2 Design	DA	JW	CT

Contractor(s)

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

Status: **Design**

Scale(s): NTS

ELR & Mileage: BML2 & RTJ1

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Drawn	Michal Taraj	Sign.	Date	03/02/2009
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Project	FTN / GSM-R Project Stage 2 Design			
Drawing Title	Totton Station (1128) to Millbrook (1129)			

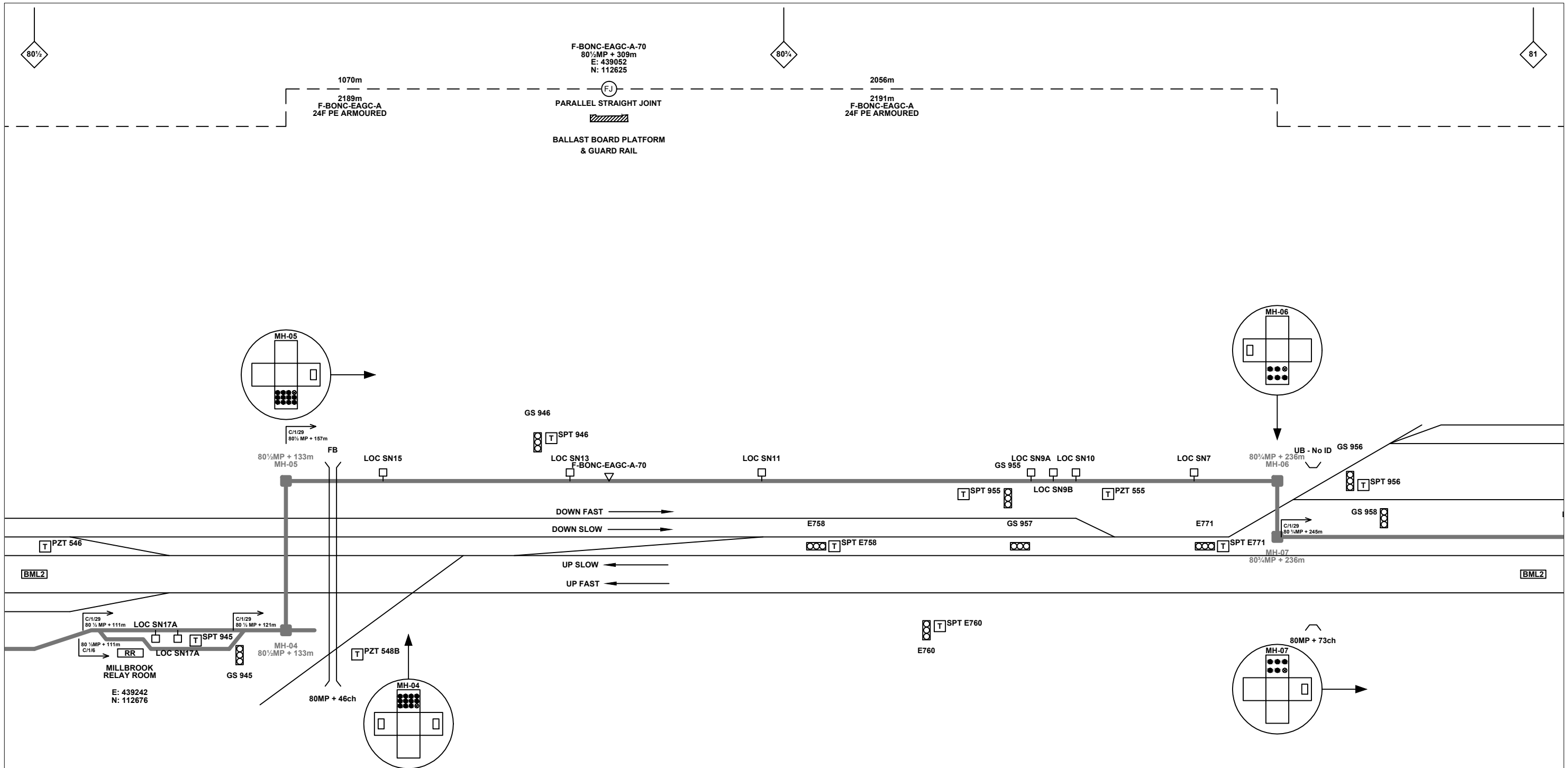
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Tottenham House
Paddington
London
W2 1HA

Alternative Reference: See Layout Tab 841 x 297 Sheet 2

Drawing Number: NTPO\SLD\1128\1129\001

Sheet: 3 of 8

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 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 Cable
KEY	Screening Conductor Joint with/without Earth	Manhole	Manhole	FTN Access Node	Cabinet Routeworks	Manhole details: Cross-To be used, Filled-In use, Clear-Empty	PAP Access Point	Platform	Water	SEW — SEW — Sewer
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	Copper Blue Fibre Red Screen Green
Proposed Copper Elements are shown in BLUE		Existing Fibre Cable	Sheath Gap Copper							AC Stanchion
Proposed Screening Elements are shown in MAGENTA		Existing Copper Cable								
All Recoveries are shown in GREEN		Existing Screen Cable								

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Design

Scale(s) NTS

ELR & Mileage BML2 & RTJ1

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Project	FTN / GSM-R Project Stage 2 Design			
Drawing Title	Totton Station (1128) to Millbrook (1129)			

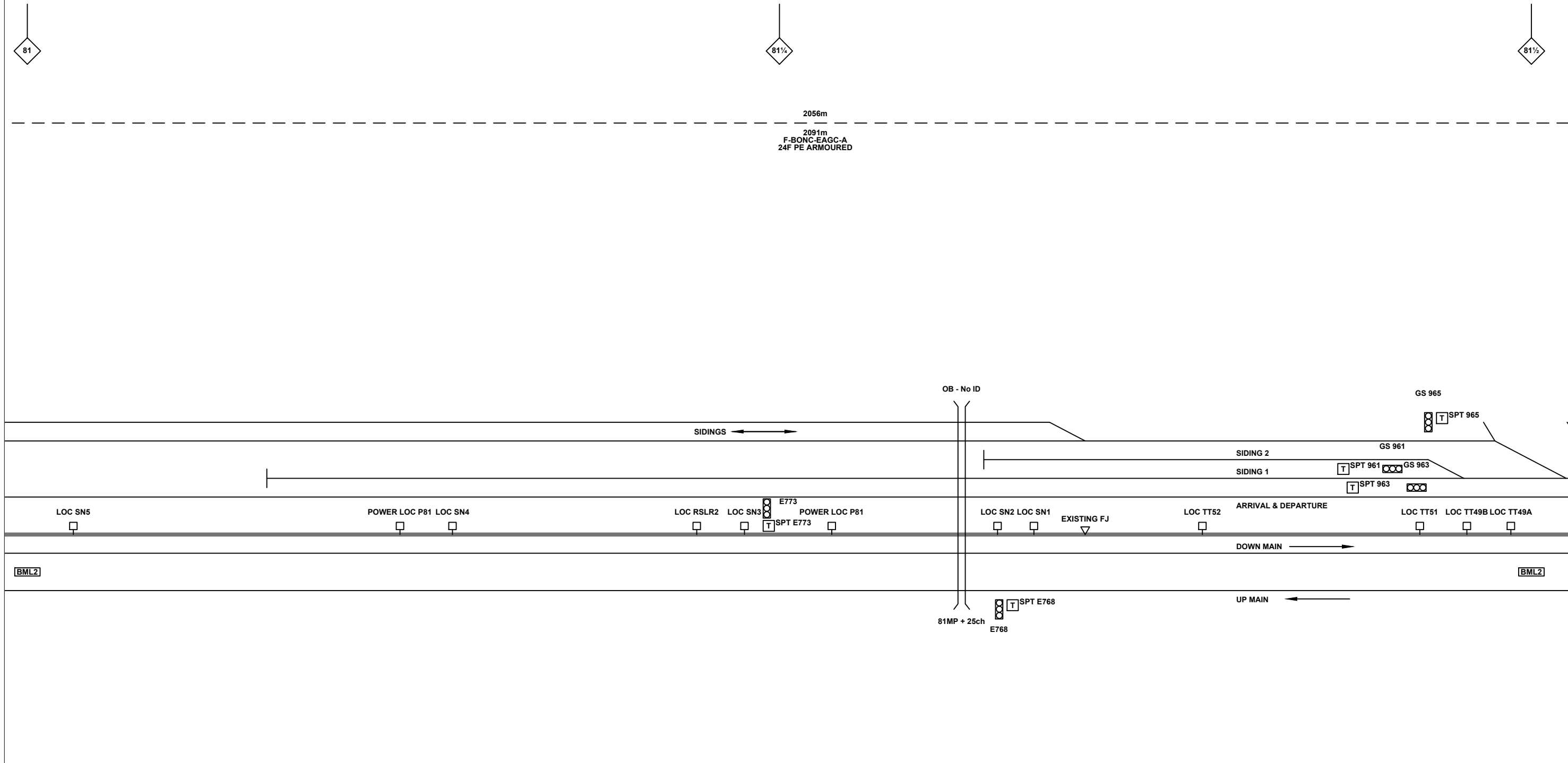
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London
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Alternative Reference See Layout Tab 841 x 297 Sheet 2

Drawing Number NTPO\SLD\1128\1129\001

Sheet 4 of 8

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 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	Vehicle Access Point	Mile Post	HV	HV	HV 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	Pedestrian Access Point	Platform	LV	LV	LV Cable	
Proposed Fibre & Civils Elements are shown in RED		All Existing Elements are shown in BLACK	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							TEL	TEL	Telecoms	
Proposed Screening Elements are shown in MAGENTA		Existing Copper Cable							W	W	Water	
All Recoveries are shown in GREEN		Existing Screen Cable							Cable Pull	Cable Pull	AC Stanchion	

Notes

Rev	Date	Description of Revisions	Drawn	Chkd	Appr
DA	03/02/2009	1st Issue	MT	AEL	SW
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B	15/12/2010	1st Issue - Stage 2 Design	DA	JW	CT

Contractor(s)

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Status: **Design**

Scale(s): NTS

ELR & Mileage: BML2 & RTJ1

Designed	Michal Taraj	Sign.	Date	03/02/2009
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Project	FTN / GSM-R Project Stage 2 Design			
Drawing Title	Totton Station (1128) to Millbrook (1129)			

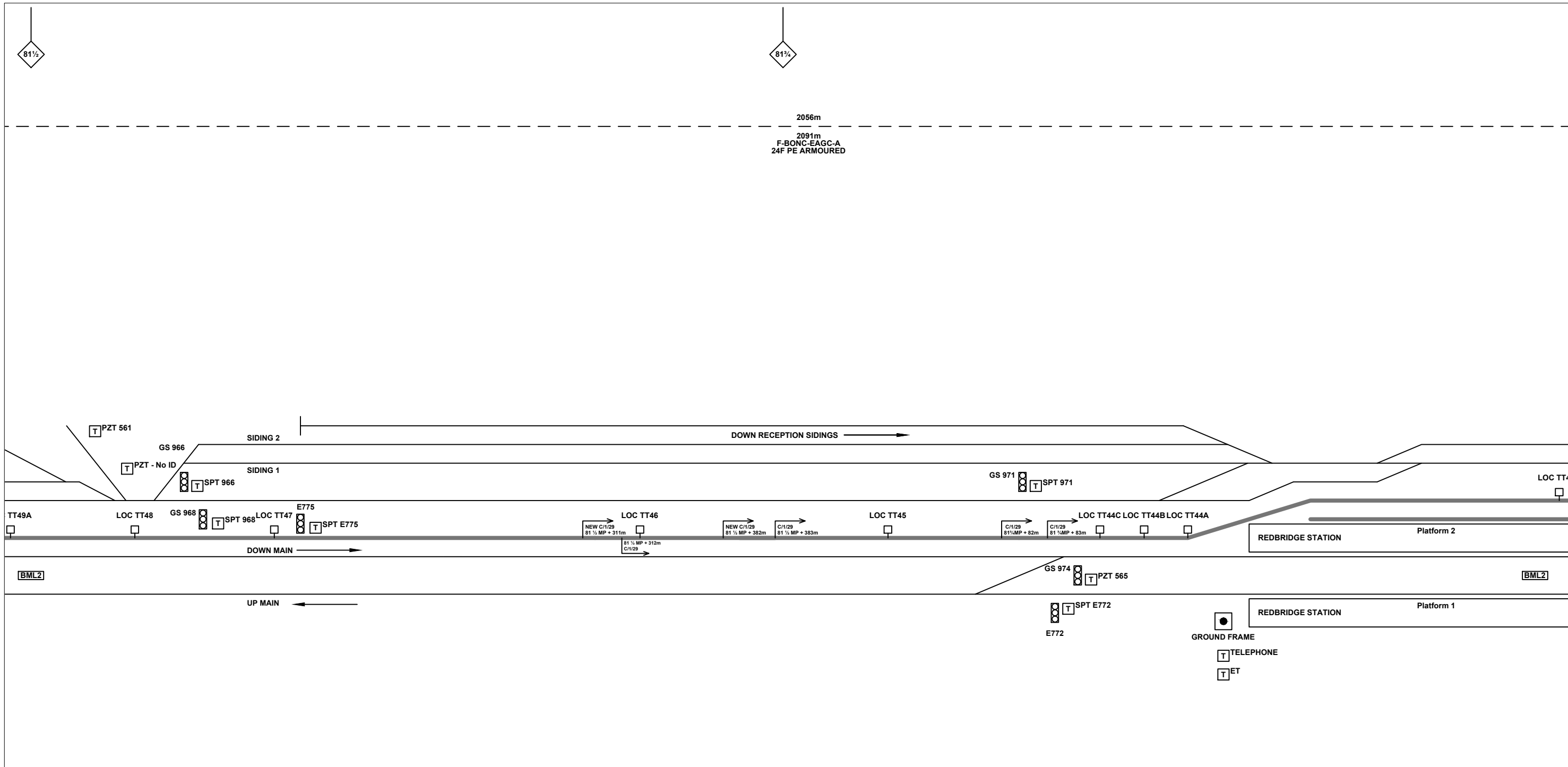
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Paddington
London
W2 1HA

Alternative Reference: See Layout Tab 841 x 297 Sheet 3

Drawing Number: NTPO\SLD\1128\1129\001

Sheet: 5 of 8

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 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	SEW — SEW — Sewer	LV — LV — LV Cable
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	TEL — TEL — Telecoms	W — W — Water
Proposed Copper Elements are shown in BLUE		Existing Fibre Cable	Sheath Gap Copper						Cable 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
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Contractor(s)

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Status: **Design**

Scale(s): NTS

ELR & Mileage: BML2 & RTJ1

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Project	FTN / GSM-R Project Stage 2 Design			
Drawing Title	Totton Station (1128) to Millbrook (1129)			

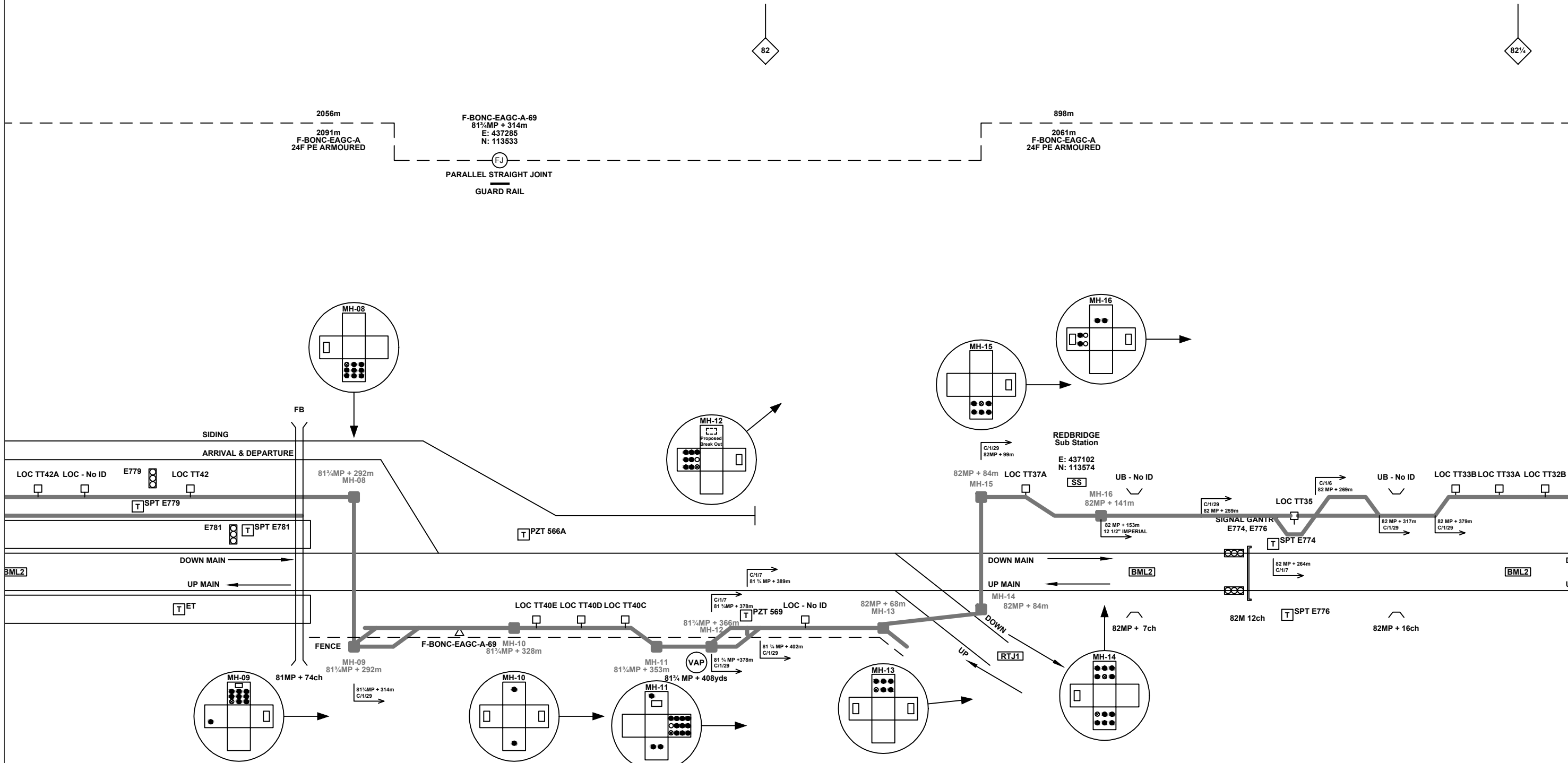
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Tottenham House
Paddington
London
W2 1HA

Alternative Reference: See Layout Tab 841 x 297 Sheet 3

Drawing Number: NTPO\SLD\1128\1129\001

Sheet: 6 of 8

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

Notes

Rev	Date	Description of Revisions	Drawn	Chkd	Appr
DA	03/02/2009	1st Issue	MT	AEL	SW
DB	22/10/2009	2nd Issue	MT	AEL	SW
A	16/11/2009	Final Issue	MT	AEL	SW
B	15/12/2010	1st Issue - Stage 2 Design	DA	JW	CT

Contractor(s)

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

Status: **Design**

Scale(s): NTS

ELR & Mileage: BML2 & RTJ1

Designed	Michal Taraj	Sign.	Date	03/02/2009
Drawn	Michal Taraj	Sign.	Date	03/02/2009
Checked	Alan Littlefair	Sign.	Date	03/02/2009
Approved	Steve Witt	Sign.	Date	03/02/2009
Project: FTN / GSM-R Project Stage 2 Design				
Drawing Title: Totton Station (1128) to Millbrook (1129)				

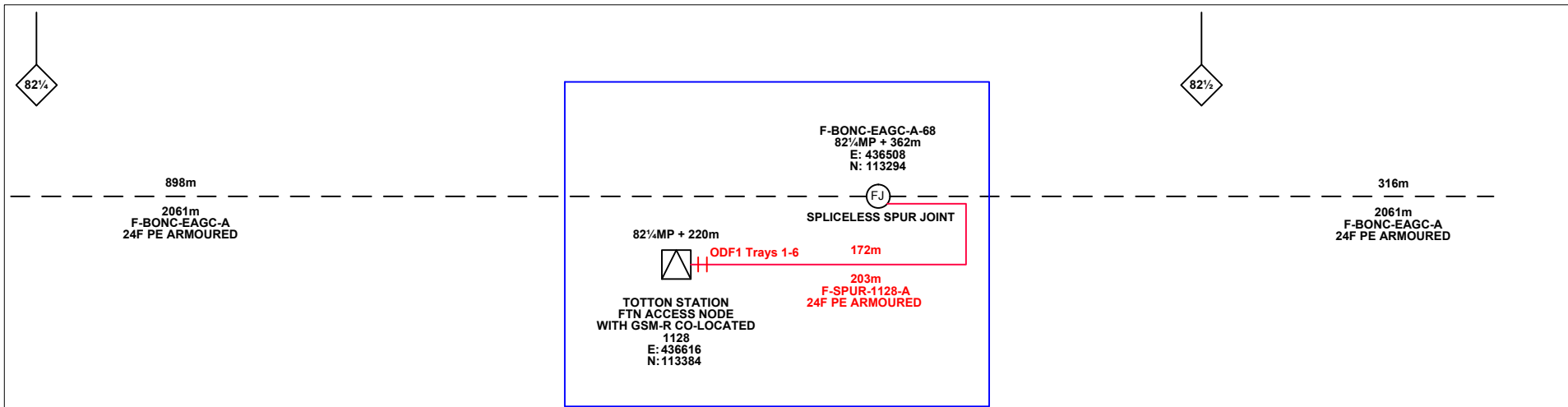
FTN/GSM-R Project
Tottenham House
Farringdon
London
W2 1HA

Alternative Reference: See Layout Tab 841 x 297 Sheet 4

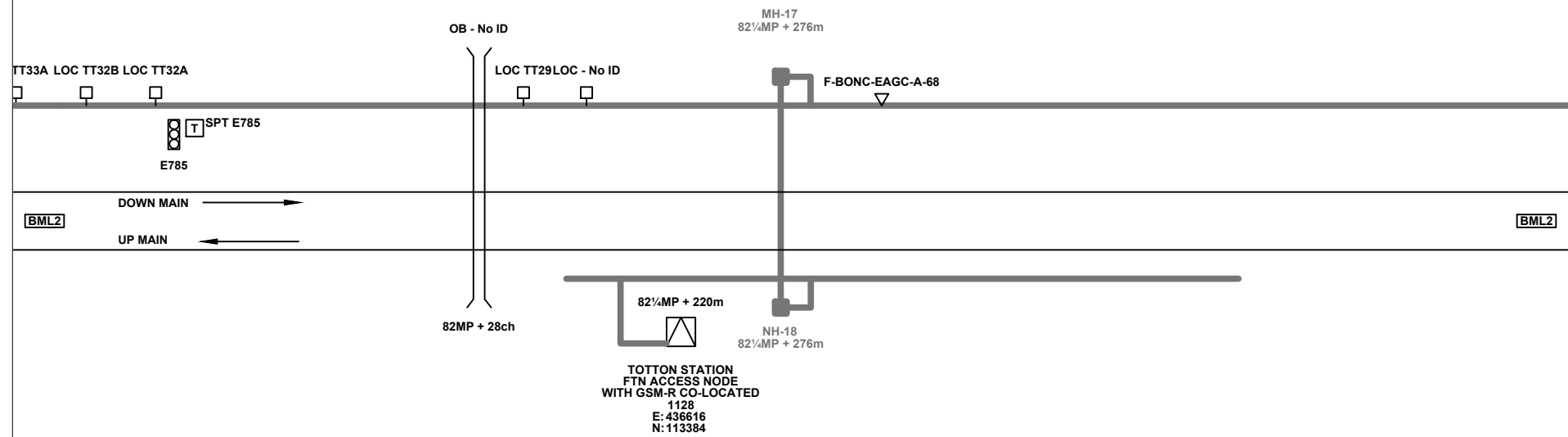
Drawing Number: NTPO\SLD\1128\1129\001

Sheet: 7 of 8

Revision: B



Fibre Spur Connection Works
Around Node 1128 As Per
NTP01128GA001 and Associated BOQ



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	SEW — SEW — Sewer	LV — LV — LV Cable
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	W — W — Water
Proposed Copper Elements are shown in BLUE		Existing Fibre Cable	Sheath Gap Copper							Cable Pull
Proposed Screening Elements are shown in MAGENTA		Existing Copper Cable								AC Stanchion
All Recoveries are shown in GREEN		Existing Screen Cable								

Notes

Rev	Date	Description of Revisions	Drawn	Chkd	Appr
DA	03/02/2009	1st Issue	MT	AEL	SW
DB	22/10/2009	2nd Issue	MT	AEL	SW
A	16/11/2009	Final Issue	MT	AEL	SW
B	15/12/2010	1st Issue - Stage 2 Design	DA	JW	CT

Contractor(s)

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

Status: **Design**

Scale(s): NTS

ELR & Mileage: BML2 & RTJ1

Designed	Michal Taraj	Sign.	Date	03/02/2009
Drawn	Michal Taraj	Sign.	Date	03/02/2009
Checked	Alan Littlefair	Sign.	Date	03/02/2009
Approved	Steve Witt	Sign.	Date	03/02/2009
Project	FTN / GSM-R Project Stage 2 Design			
Drawing Title	Totton Station (1128) to Millbrook (1129)			

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

Alternative Reference: See Layout Tab 841 x 297 Sheet 4

Drawing Number: NTP0\SLD\1128\1129\001

Revision: **B**

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