

Legend

- Cabinet and Verts
- Cabinet with Regenerator and Verts
- Copper Joint
- Fibre Joint
- Screening Conductor Joint with/without Earth
- Trough Duct Cable Tray
- Cable - Type Identified by FTN Code
- Manhole
- Mid Length Sheath Gap Fibre
- Sheath Gap Copper
- Signal Box
- Electrical Control Room
- Manhole
- FTN Core Node
- Core Node with GSM-R Colocated
- FTN Access Node
- FTN Access Node with GSM-R Colocated
- Screen Joint Routeworks
- Copper Joint Routeworks
- Cabinet Routeworks
- Fibre Joint Routeworks
- Manhole details: Cross-To be used Filled-In use Clear-Empty
- Tunnel
- Overbridge
- Underbridge
- Earth Farm
- Signal
- Vehicle Access Point
- Pedestrian Access Point
- Platform
- Telephone
- Engineer's Line Reference
- Mile Post
- Platform
- Telephone
- Crossing
- Gantry
- Cable Pull
- Copper Blue Fibre Red Screen Green
- AC Stanchion
- Gas Line
- HV Cable
- LV Cable
- Sewer
- Telecoms
- Water

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
- 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	16.10.12	As Built	KOL	JB	PH
B	26.04.11	Amends As Per NWR Design Review	DA	JW	CT
A	02.12.10	Redrafted from VSCC-WARC FTN001_02430_DRAB_0001_LRevB.dwg	MB	JW	CT

Contractor(s)

Kelly Integrated Transport Services Ltd

ndc consultants

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

Status: **As Built**

Scale(s): ELR & Mileage

Drawn: NTS

Chkd: BSP1/BML1

Appr: [Signature]

Designated	Sign.	Date
Drawn	Mike Bonner	02.12.10
Checked	Joe Winter	02.12.10
Approved	Chris Tappenden	02.12.10

Project: **FTN / GSM-R Project Stage 2 As Built**

Drawing Title: **Battersea Pier Junctions (6165) to Vauxhall (London) (6182)**

Network Rail

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

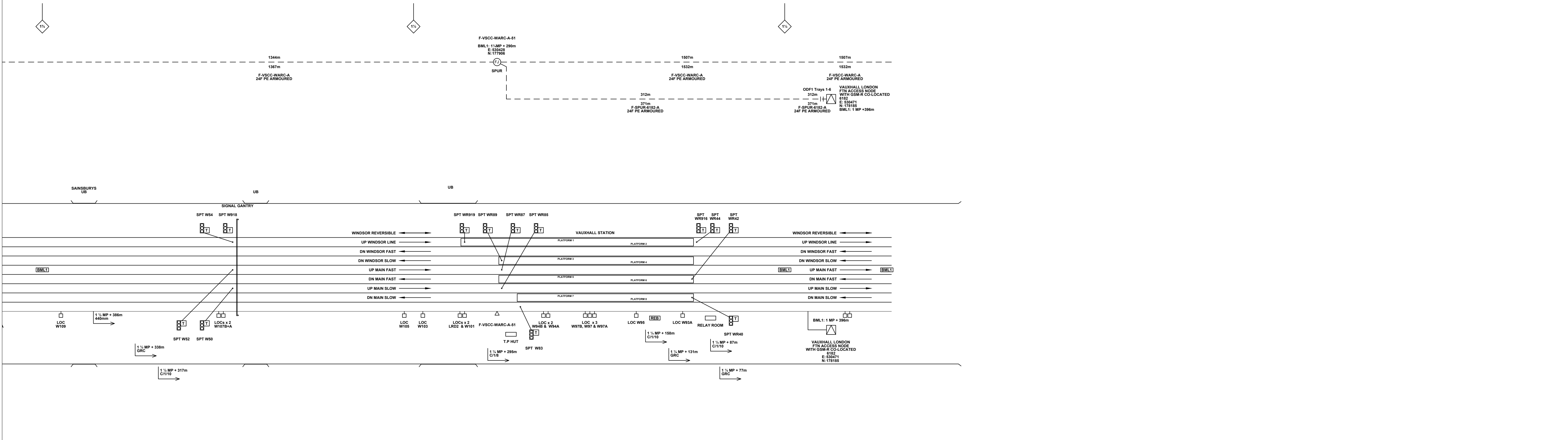
Alternative Reference: **See Layout Tab A3 Sheets 1 and 2**

Drawing Number: **NTPO\SLD\6165\6182\001**

Sheet: **1 of 2**

Revision: **C**

Sheet Size 841x297



Legend

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

Notes

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Rev	Date	Description of Revisions	Drawn	Chkd	Appr

Contractor(s)

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

ndcconsultants

Status: **As Built**

Scale(s): ELR & Mileage

Drawn: NTS

Chkd: BSP1/BML1

Appr:

Designed	Mike Bonner	Sign.	Date	02.12.10
Drawn	Joe Winter	Sign.	Date	02.12.10
Checked	Chris Tappenden	Sign.	Date	02.12.10
Approved	Chris Tappenden	Sign.	Date	02.12.10
Project	FTN / GSM-R Project Stage 2 As Built			
Drawing Title	Battersea Pier Junctions (6165) to Vauxhall (London) (6182)			

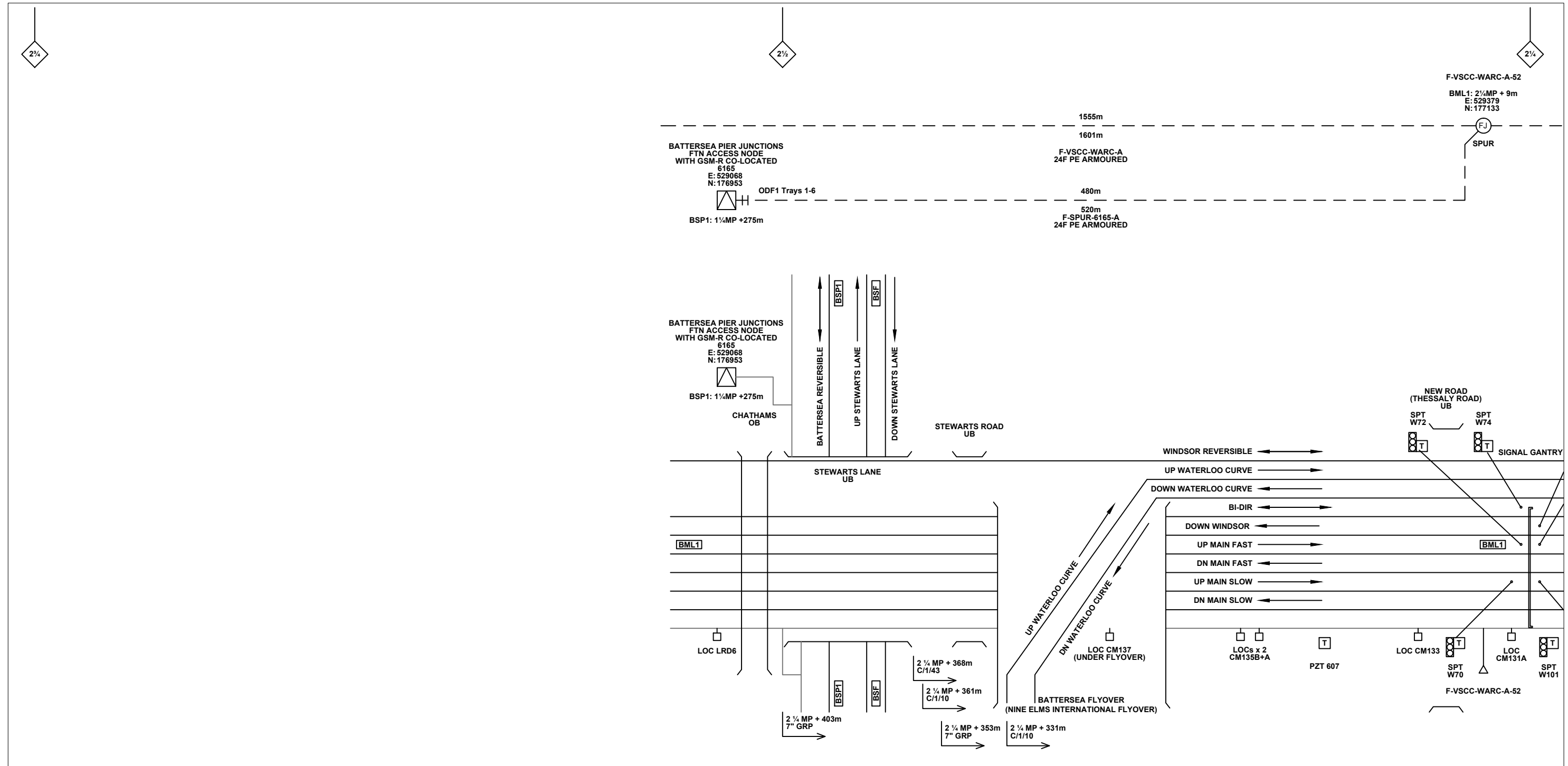
FTN/GSM-R Project
Tournament House
Paddington
London
W2 1HA

Alternative Reference: See Layout Tab A3 Sheets 3 and 4

Drawing Number: NTPO\SLD\6165\6182\001

Sheet: 2 of 2

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	VAP	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	PAP	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	Telephone	TEL — TEL — Telecoms	W — W — Water
Proposed Copper Elements are shown in BLUE		Existing Fibre Cable	Sheath Gap Copper				Buffer Stop	Cable Pull	AC Stanchion	
Proposed Screening Elements are shown in MAGENTA		Existing Copper Cable							Copper Blue	
All Recoveries are shown in GREEN		Existing Screen Cable							Fibre Red	
									Screen Green	

Notes

Contractor(s)	Kelly Integrated Transport Services Ltd					
Designed	Mike Bonner	Sign.		Date	02.12.10	
Drawn	Joe Winter	Sign.		Date	02.12.10	
Checked	Chris Tappenden	Sign.		Date	02.12.10	
Approved						
Project	FTN / GSM-R Project Stage 2 As Built					
Drawing Title	Battersea Pier Junctions (6165) to Vauxhall (London) (6182)					
Alternative Reference	See Layout Tab 841 x 297 Sheet 1					
Drawing Number	NTPO\SLD\6165\6182\001					
Sheet	1 of 4				Revision	C

ndc consultants

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

Status: **As Built**

Scale(s): NTS

ELR & Mileage: BSP1/BML1

Project	FTN / GSM-R Project Stage 2 As Built					
Drawing Title	Battersea Pier Junctions (6165) to Vauxhall (London) (6182)					
Alternative Reference	See Layout Tab 841 x 297 Sheet 1					
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Sheet	1 of 4				Revision	C

Network Rail

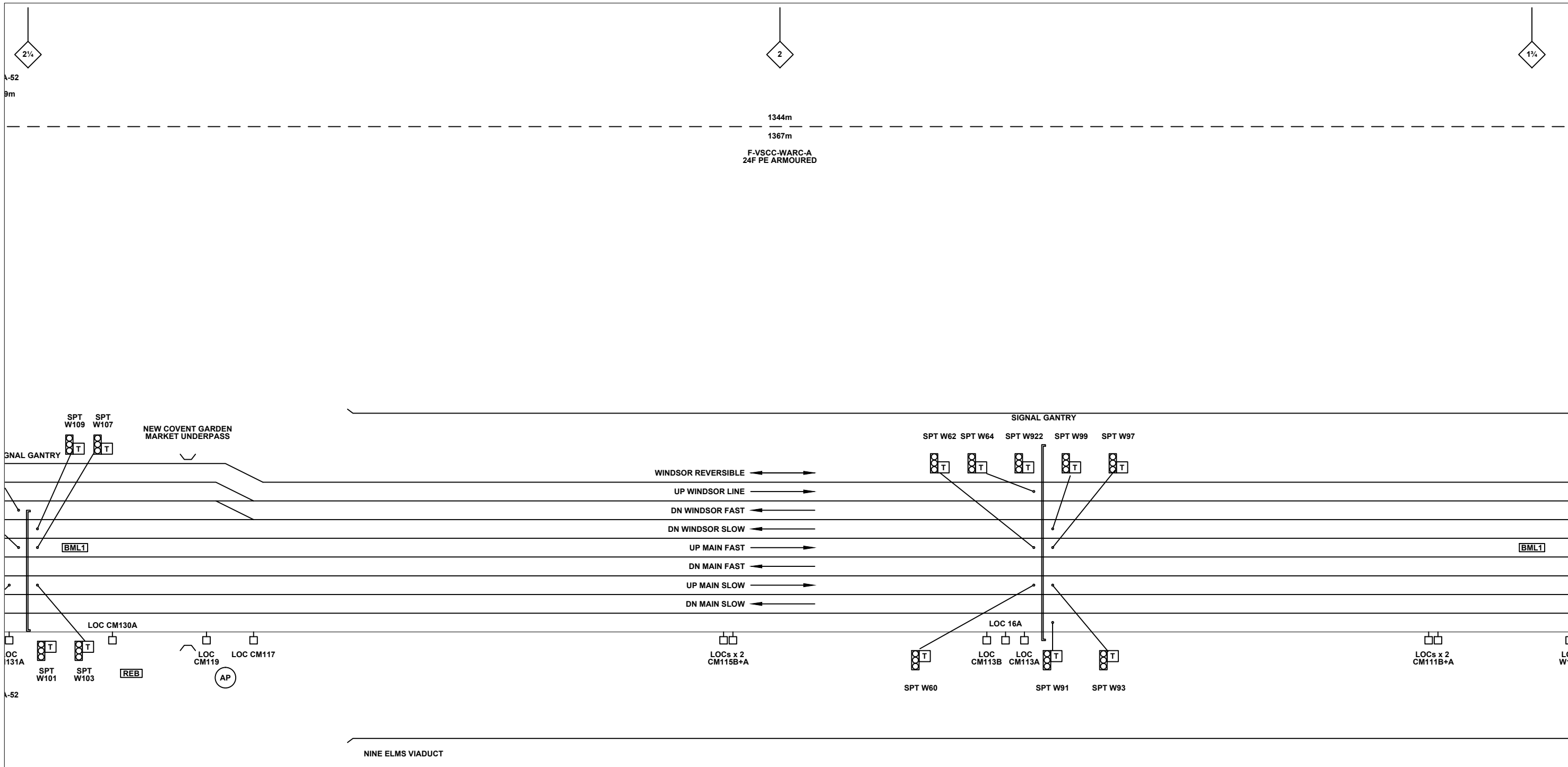
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Alternative Reference: See Layout Tab 841 x 297 Sheet 1

Drawing Number: NTPO\SLD\6165\6182\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	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	LV — LV — LV Cable
KEY	Screening Conductor Joint with/without Earth	Manhole	Mid Length Sheath Gap Fibre	FTN Access Node	Cabinet Routeworks	Tunnel	Pedestrian Access Point	Platform	SEW — SEW — Sewer	TEL — TEL — Telecoms
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	Earth Farm	Buffer Stop	Telephone	Cable Pull	AC Stanchion	W — W — Water

Notes

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Contractor(s)

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

Status: **As Built**

Scale(s): NTS

ELR & Mileage: BSP1/BML1

Designed	Sign.	Date
Drawn	Sign.	Date 02.12.10
Checked	Sign.	Date 02.12.10
Approved	Sign.	Date 02.12.10
Project		
FTN / GSM-R Project Stage 2 As Built		
Drawing Title		
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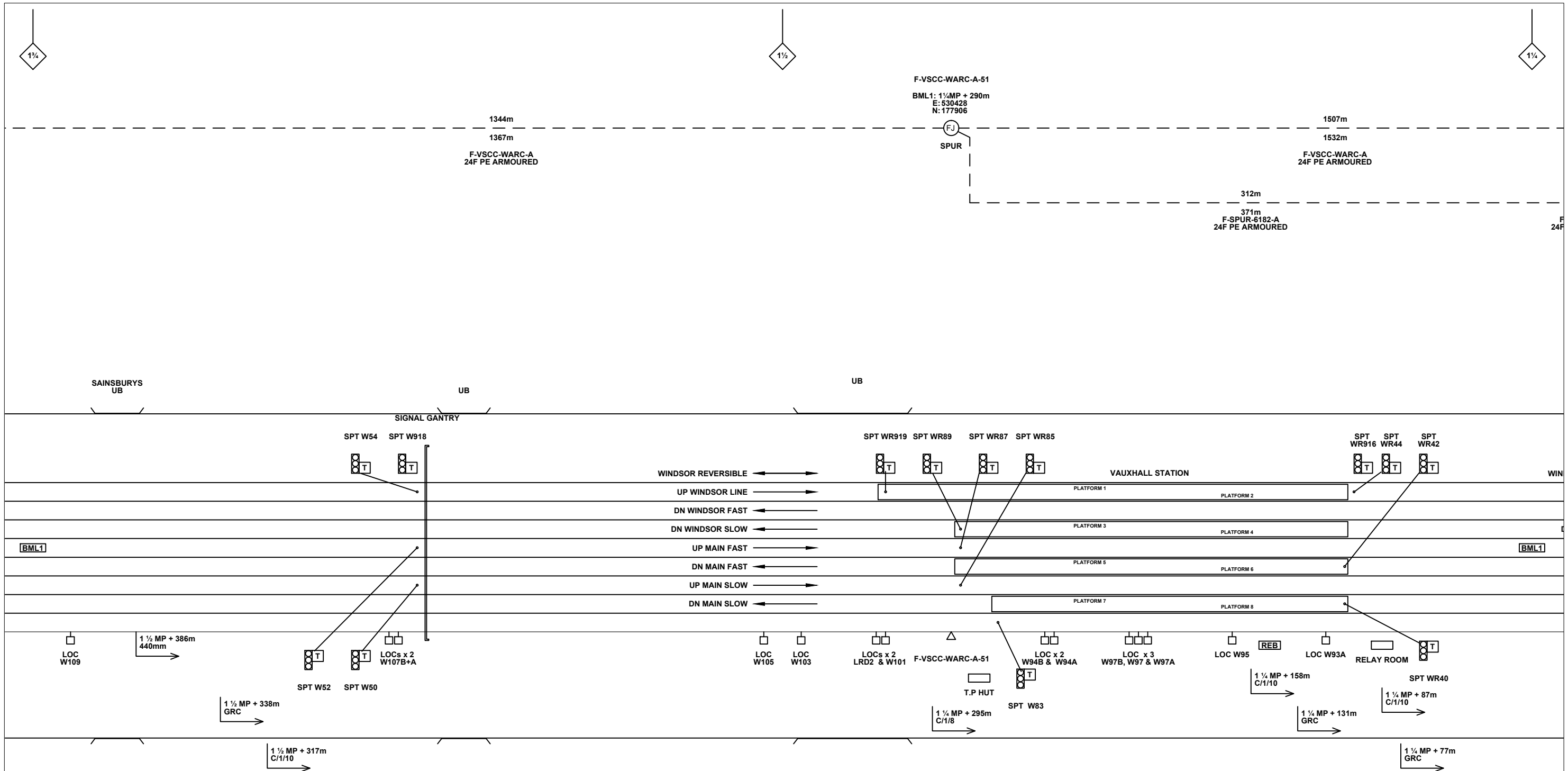
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Alternative Reference: See Layout Tab 841 x 297 Sheet 1

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Sheet: 2 of 4

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

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Contractor(s)

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

Status: **As Built**

Scale(s): NTS

ELR & Mileage: BSP1/BML1

Designed	Sign.	Date
Drawn	Mike Bonner	02.12.10
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Approved	Chris Tappenden	02.12.10
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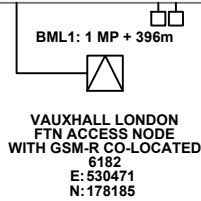
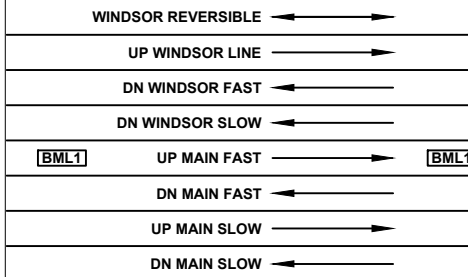
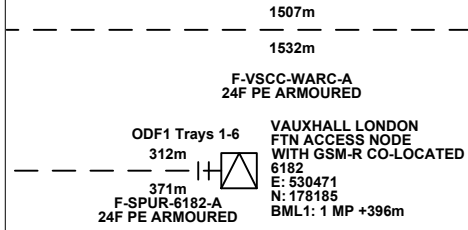
Alternative Reference: See Layout Tab 841 x 297 Sheet 2

Drawing Number: NTPO\SLD\6165\6182\001

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Revision: C

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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 — 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 Vehicle Access Point	Mile Post	HV — HV — HV Cable	LV — LV — LV 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	PAP Pedestrian Access Point	Platform	SEW — SEW — Sewer	TEL — TEL — Telecoms
Proposed Fibre & Civils Elements are shown in RED		2034m F-DIDC-RGAC-A	Sheath Gap Copper	FTN Access Node with GSM-R Colocated	Fibre Joint Routeworks	Tunnel	Earth Farm	Buffer Stop	W — W — Water	AC Stanchion
Proposed Copper Elements are shown in BLUE		Status - as per Key Below								
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										

Contractor(s)	Kelly Integrated Transport Services Ltd ndc consultants Unit 4 Apex Park, Wainwright Road, Worcester, Worcestershire, WR4 9FN. Tel: 01905 756000				
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Scale(s)	NTS				
ELR & Mileage	BSP1/BML1				
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Checked	Joe Winter	02.12.10
Approved	Chris Tappenden	02.12.10
Project	FTN / GSM-R Project Stage 2 As Built	
Drawing Title	Battersea Pier Junctions (6165) to Vauxhall (London) (6182)	

FTN/GSM-R Project
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Alternative Reference: See Layout Tab 841 x 297 Sheet 2

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Sheet: 4 of 4

Revision: C