

A12 Chelmsford to A120 widening scheme

**Map book 3: Engineering plans
(Set 1 of 4 - Mainline)**

A12 Chelmsford to A120 widening scheme map books

The three map books prepared for this statutory consultation contain plans of the proposed scheme under the following headings:

- Map book 1: General arrangements (layout plans)
- Map book 2: Land use plans
- Map book 3: Engineering plans

These plans show the proposed scheme in detail to help the viewer better understand our proposals.

The plans run from junction 19 (Boreham interchange) to junction 25 (Marks Tey interchange). Identically numbered sheets in the different map books show the same area. For example, in map book 1, sheet 1 shows the layout around junction 19, and in map book 2, sheet 1 shows the land use plan around junction 19. This principle applies across all the map book 1 and map book 2 sheets but is not carried through into map book 3.

Map book 1: General arrangements

The general arrangements show the layout of the proposed scheme, including:

- Permanent works, new roads, earthworks and roadside features such as signage and lighting columns
- Environmental mitigation, landscaping and tree planting

- Provisional order limits (also known as the red line boundary)
- Open space and replacement land

Map book 2: Land use plans

The land use plans show the areas where we are seeking powers to acquire land and rights permanently. They also show the land we require for a temporary period to construct the proposed scheme. We may need the land permanently for:

- road alignments
- junction improvements
- environmental mitigation
- drainage

Permanent works

Purchase of land or acquisition of permanent rights will be required for the route of the road, to reconnect local roads and for associated structures like drainage ponds.

Permanent rights

Land used temporarily for construction and thereafter required for the creation of new permanent rights for example, to maintain the proposed scheme including the highway and associated apparatus, for rights of access or for rights to operate and maintain new statutory undertaker apparatus. It may also be required where existing rights

need to be acquired, suspended, changed or extinguished to construct and operate the proposed scheme.

Temporary works

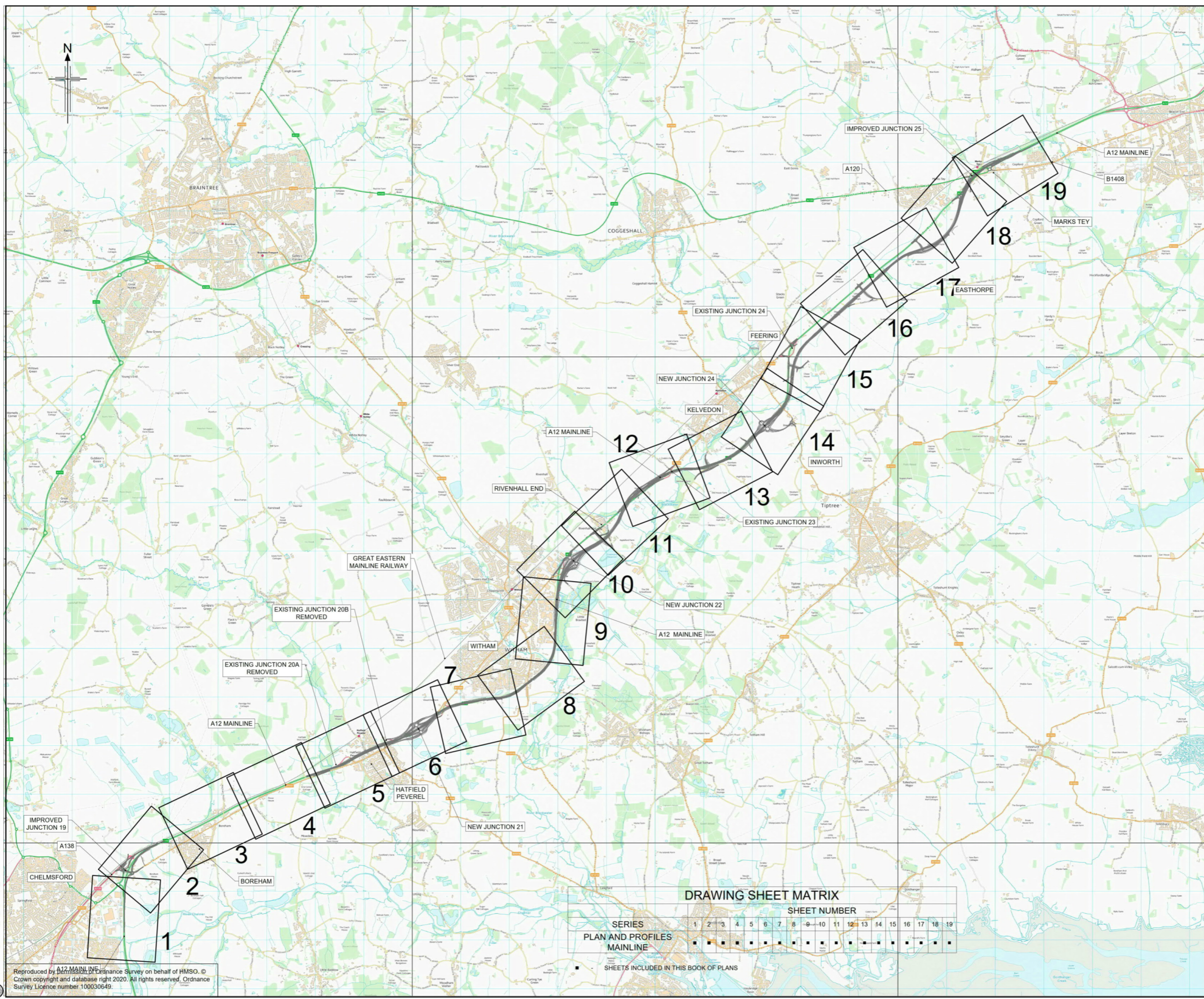
Temporary use of land is needed for the proposed scheme to be constructed safely. The plans show land that may be required temporarily for the main construction compounds at various locations along the route. We will also require temporary access over land to divert utilities such as gas pipelines, electricity cables and water pipes. Any land that is only required temporarily will be returned to its previous use wherever possible once construction is complete.

Map book 3: Engineering plans

These plans show the highway details of the route in a 'plan and profile' (level above or below existing ground) format. The drawings are split into two views, with the plan on the top and the profile underneath.

The profile shows the road level in relation to the existing ground at given distances along the route, referred to as chainages. An exaggerated scale is used in the profile to help show the differences in levels and slopes of the design. The profile also shows where existing roads and public rights of way cross over or under the route.

All levels are given in relation to sea level. As is the standard approach on engineering projects, sea level is taken from a reference point at Newlyn in Cornwall. The profile reference level might be different on each drawing.



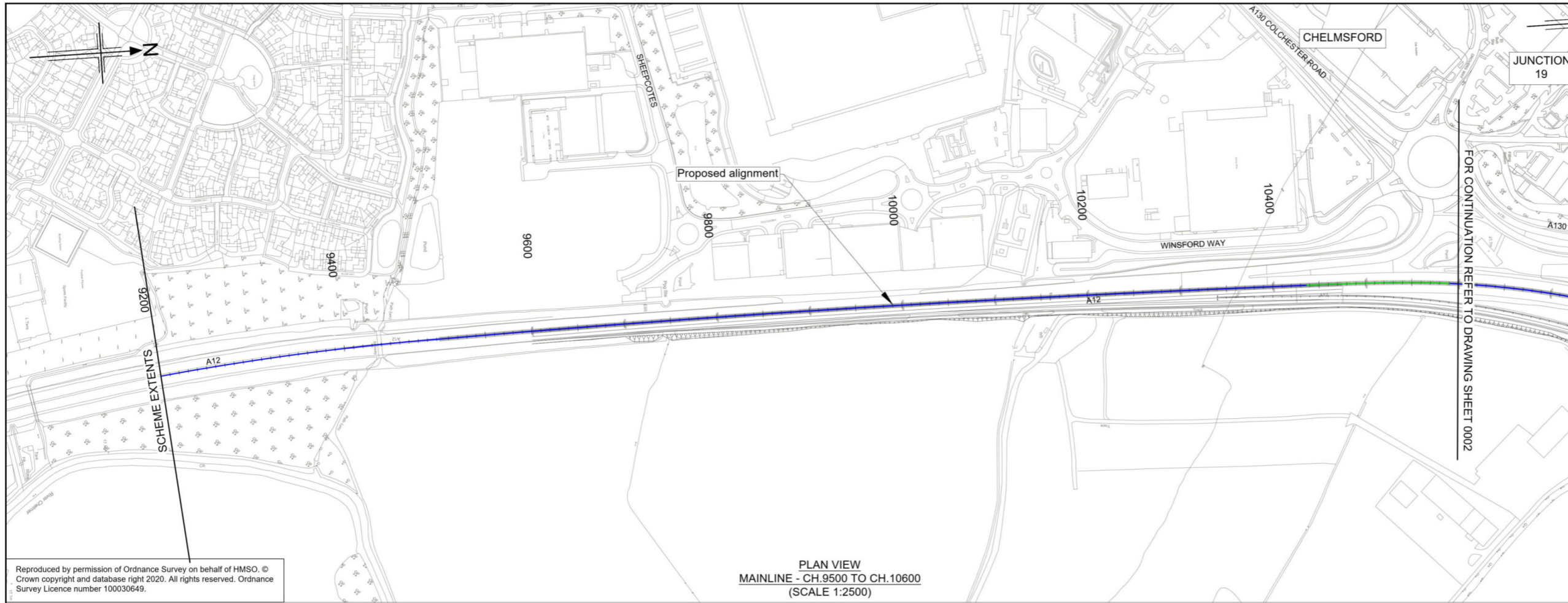
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DRAWING SHEET MATRIX																			
SHEET NUMBER	SHEET NUMBER																		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	
SERIES		PLAN AND PROFILES MAINLINE																	
SHEETS INCLUDED IN THIS BOOK OF PLANS		<div style="display: flex; justify-content: space-around;"> ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ </div>																	

Rev	Rev. Date	Purpose of revision	Drawn	Checked	Rev'd	Appr'd
P01	25/05/21	FOR STATUTORY CONSULTATION	SH	CA	RM	RC
Contractor:			Designer:			
Client:						
Project:						
REGIONAL DELIVERY PARTNERSHIP						
A12 CHELMSFORD TO A120 WIDENING SCHEME						
Drawing title:						
COVERSHEET						
PLAN AND PROFILES						
MAINLINE						
Drawing status:						
S2 - SUITABLE FOR INFORMATION						
State Code:						
Preliminary						
Project Stage:						
PCF3						
Scale:						
NTS						
DO NOT SCALE						
Jacobs No.:						
B36601D1						
Client no.:						
HE551497						
Drawing number:						
HE551497 - JAC - HGN - SCHW - DR - C - 0028						
Originator:						
JAC						
Volume:						
-DR- C - 0028						
Location:						
SCHW						
Type Role Number						

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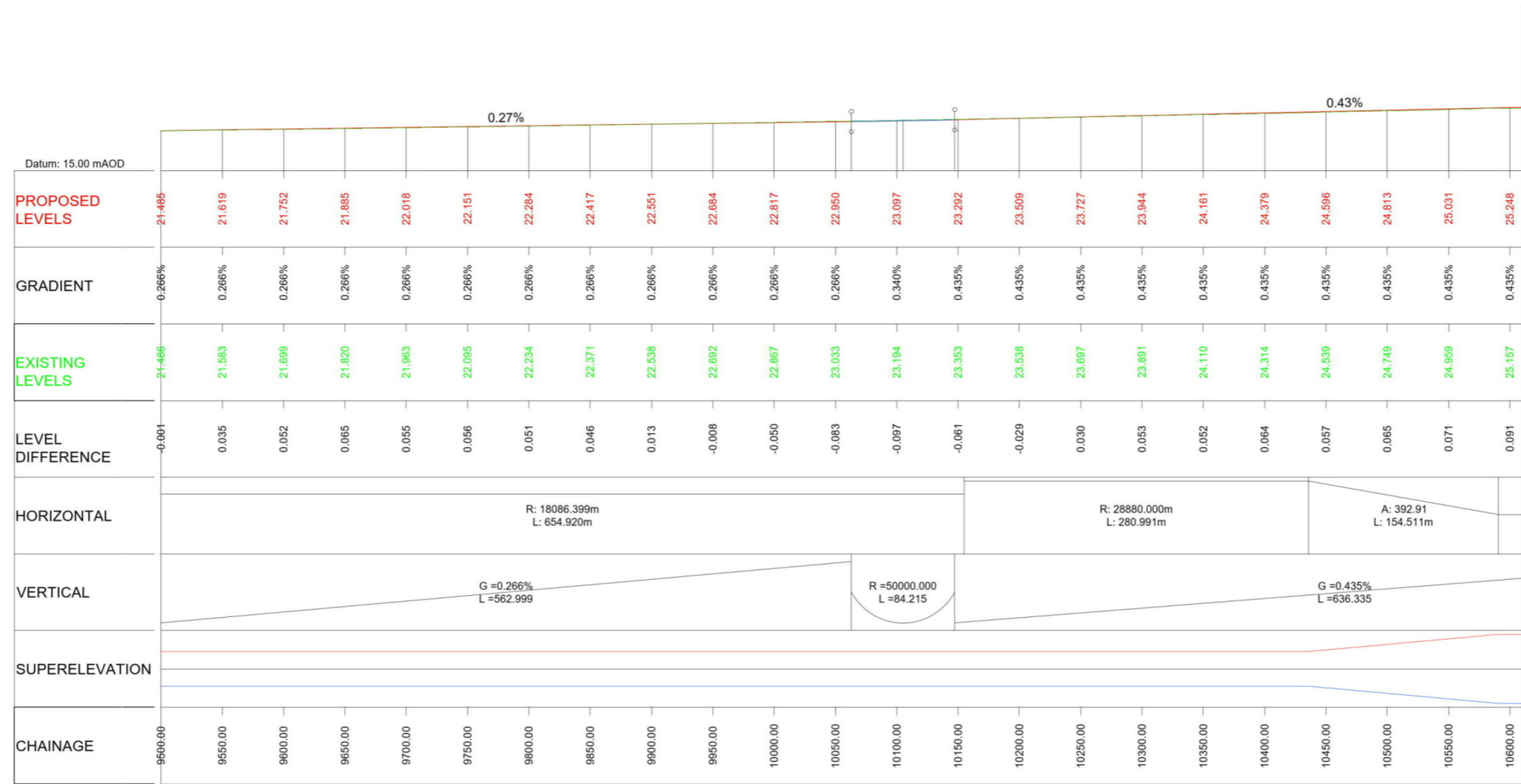


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 5. For Sheet Layout Plan refer to:
HE551497-JAC-HGN-SCHW-DR- C-0028 for Mainline profiles.
HE551497-JAC-HGN-SCHW-DR- C-0029 for Junction profiles.
HE551497-JAC-HGN-SCHW-DR- C-0030 for Sideroad profiles.

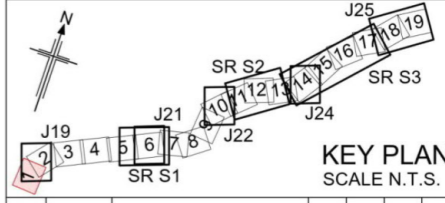
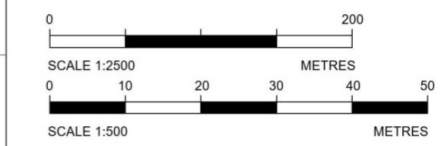
- Key
- PLAN
- Chainage
 - Curve alignment
 - Straight alignment
 - Transition alignment
- PROFILE
- Existing ground
 - Proposed ground (constant gradient)
 - Proposed ground (vertical curve)

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PLAN VIEW
MAINLINE - CH.9500 TO CH.10600
(SCALE 1:2500)



LONGITUDINAL SECTION
MAINLINE - CH.9500 TO CH.10600
(SCALE H=1:2500, V=1:500)



P01	26/04/21	DESIGN FIX 2	SH	CA	RM	RC
P02	20/05/21	FOR STATUTORY CONSULTATION	RK	CA	ST	RM
Rev	Rev. Date	Purpose of revision	Drawn	Checked	Rev'd	Apprv'd

Contractor: **COSTAIN** Designer: **Jacobs**
2nd Floor Cottons Centre, Cottons Lane
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www.jacobs.com

Client: **highways england**

Project: REGIONAL DELIVERY PARTNERSHIP
A12 CHELMSFORD TO A120 WIDENING SCHEME

Drawing title: **PLAN AND PROFILE
MAINLINE
CH. 9500 TO 10600
SHEET 1 OF 19**

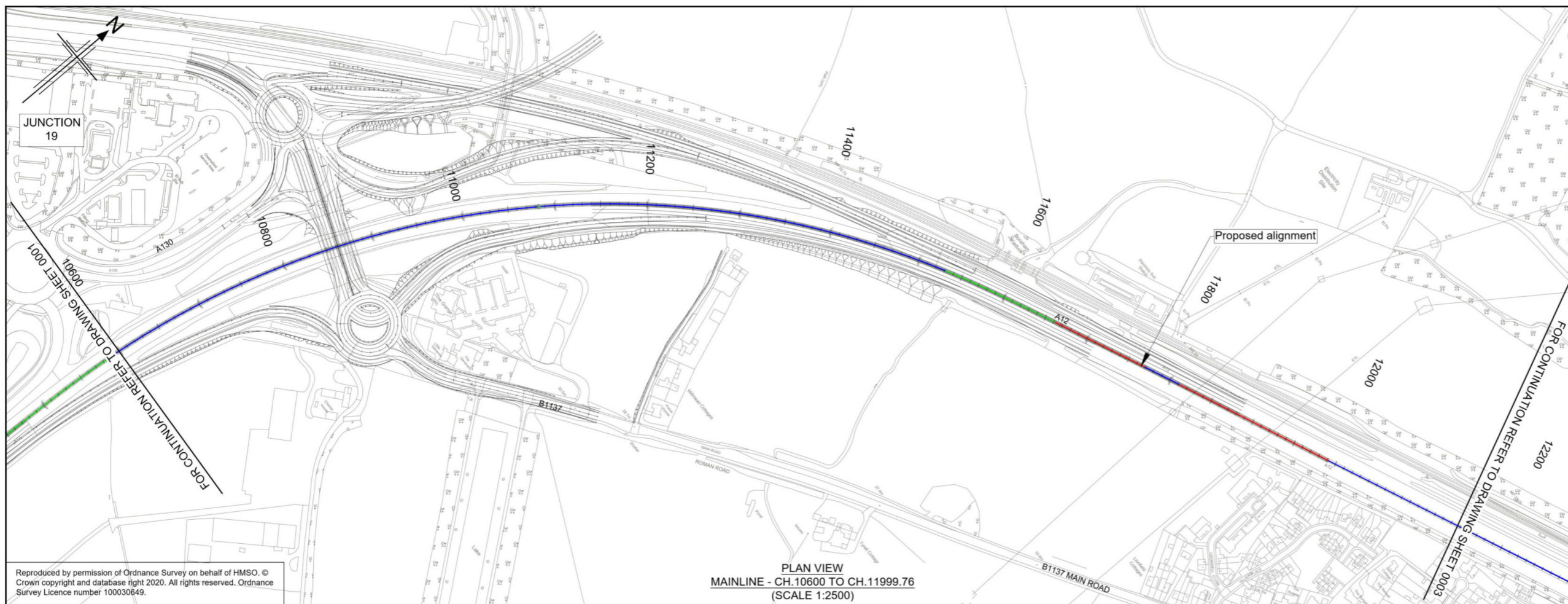
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State Code	Preliminary
Project Stage	PCF3
Scale	1:2500
Jacobs No.	B36601D1
Client no.	HE551497
DO NOT SCALE	Rev P02

Drawing number	HE551497 - JAC - HML - S1	Originator	JAC	Volume	-DR- C-0001
Location	S1	Type	Role	Number	

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PLAN VIEW
MAINLINE - CH.10600 TO CH.11999.76
(SCALE 1:2500)

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 - HE551497-JAC-HGN-SCHW-DR-C-0030 for Sideroad profiles.

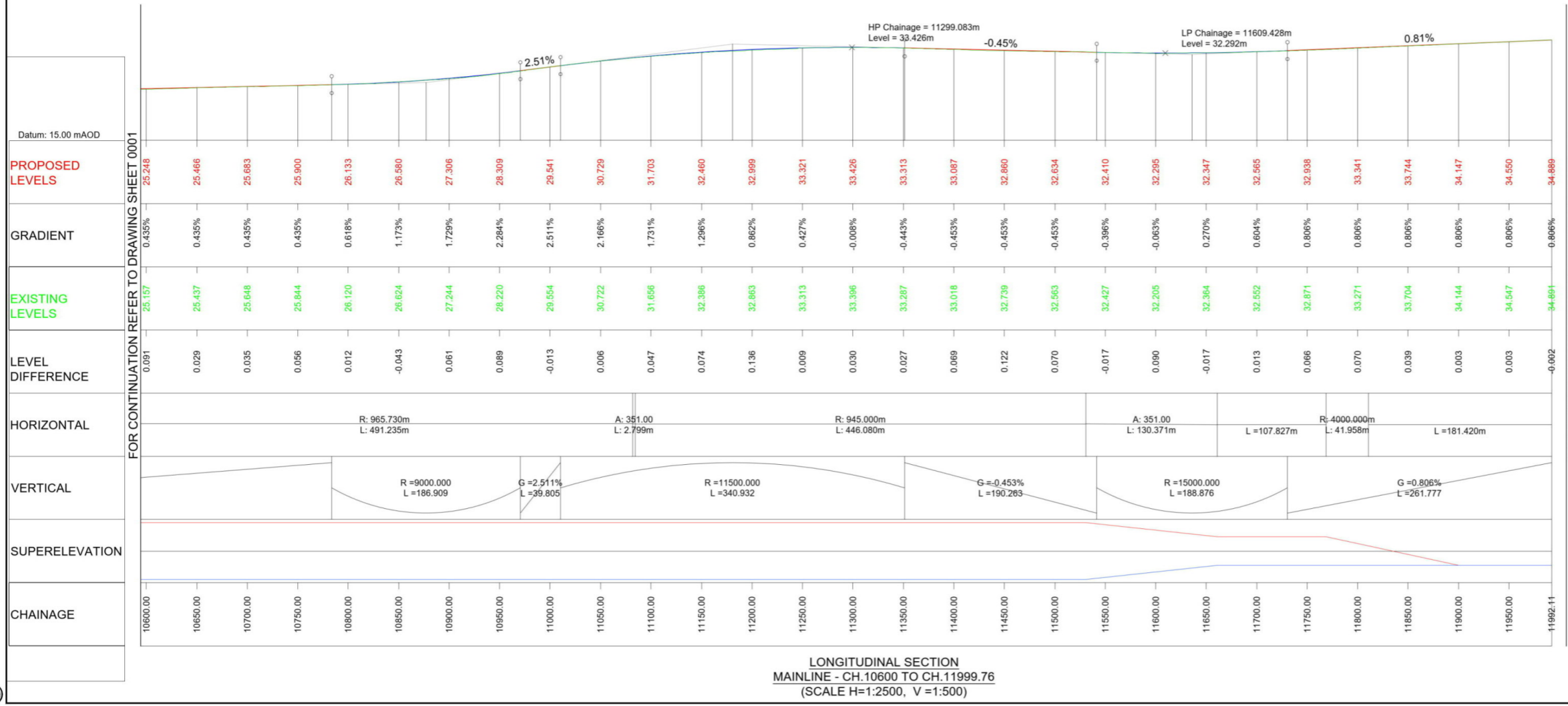
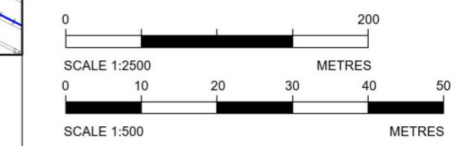
Key

PLAN

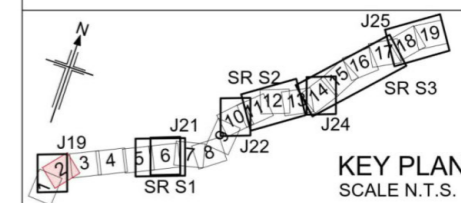
- Chainage
- Curve alignment
- Straight alignment
- Transition alignment

PROFILE

- Existing ground
- Proposed ground (constant gradient)
- Proposed ground (vertical curve)



LONGITUDINAL SECTION
MAINLINE - CH.10600 TO CH.11999.76
(SCALE H=1:2500, V=1:500)



P01	26/04/21	DESIGN FIX 2	SH	CA	RM	RC
P02	20/05/21	FOR STATUTORY CONSULTATION	RK	CA	ST	RM
Rev	Rev. Date	Purpose of revision	Drawn	Checked	Rev'd	Apprv'd

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Client: **highways england**

Project: REGIONAL DELIVERY PARTNERSHIP
A12 CHELMSFORD TO A120 WIDENING SCHEME

Drawing title: PLAN AND PROFILE
MAINLINE
CH. 10600 TO 12100
SHEET 2 OF 19

Drawing status: S2 - SUITABLE FOR INFORMATION

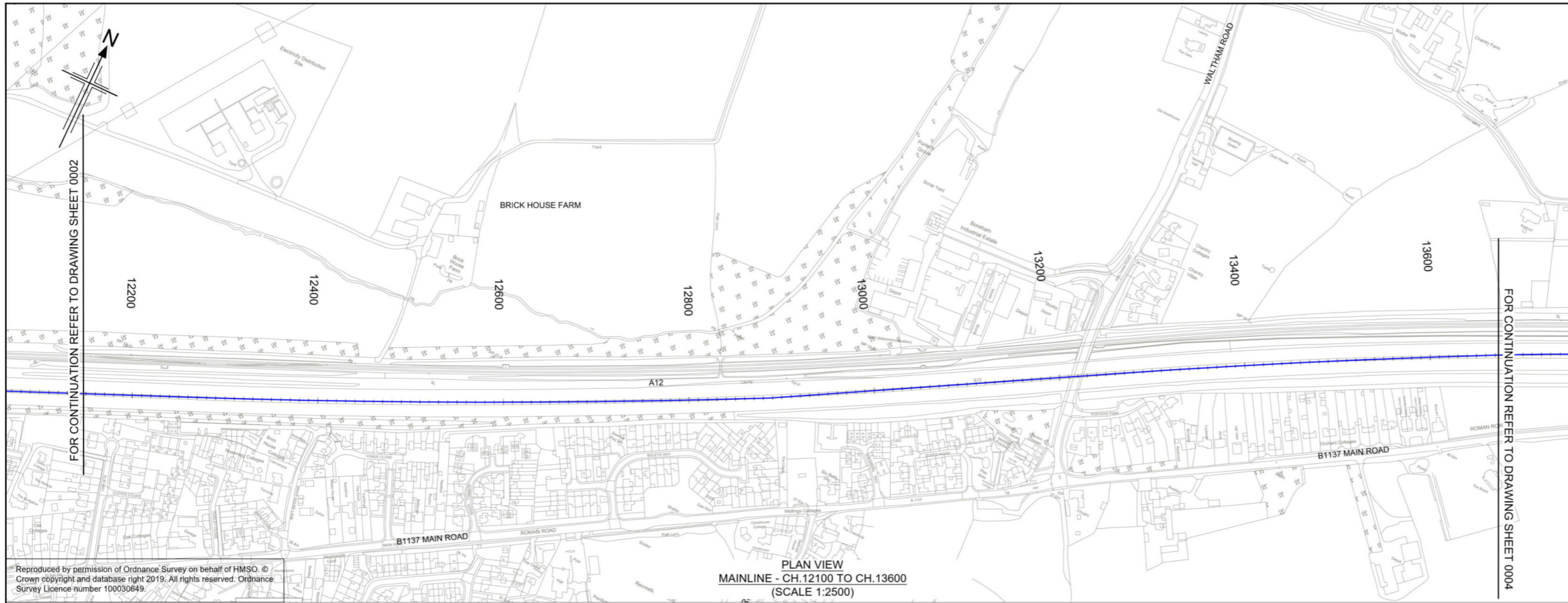
State Code	Preliminary
Project Stage	PCF3
Scale	1:2500
Jacobs No.	B36601D1
Client no.	HE551497

Drawing number	HE551497 - JAC - HML - S1	Originator	JAC	Volume	-DR- C -0002
Location		Type		Role	

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FOR CONTINUATION REFER TO DRAWING SHEET 0003

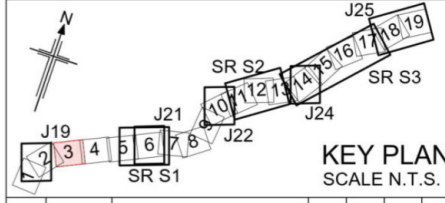
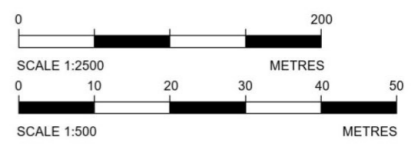


PLAN VIEW
MAINLINE - CH.12100 TO CH.13600
(SCALE 1:2500)

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 - HE551497-JAC-HGN-SCHW-DR- C-0029 for Junction profiles.
 - HE551497-JAC-HGN-SCHW-DR- C-0030 for Sideroad profiles.

- Key
- PLAN
- Chainage
 - Curve alignment
 - Straight alignment
 - Transition alignment
- PROFILE
- Existing ground
 - Proposed ground (constant gradient)
 - Proposed ground (vertical curve)



Rev	Rev. Date	Purpose of revision	Drawn	Checked	Rev'd	Apprv'd
P01	20/05/21	FOR STATUTORY CONSULTATION	RK	CA	ST	RM

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Project: REGIONAL DELIVERY PARTNERSHIP
A12 CHELMSFORD TO A120 WIDENING SCHEME

Drawing title: **PLAN AND PROFILE MAINLINE CH. 12100 TO 13600 SHEET 3 OF 19**

Drawing status: **S2 - SUITABLE FOR INFORMATION**

State Code	Preliminary
Project Stage	PCF3
Scale	1:2500
Jacobs No.	B36601D1
Client no.	HE551497
DO NOT SCALE	Rev P01

Drawing number	HE551497 - S1	Originator	JAC	Volume	-HML-
Location		Type		Role	-DR-
		Number			C-0003

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Datum: 15.00 mAOD

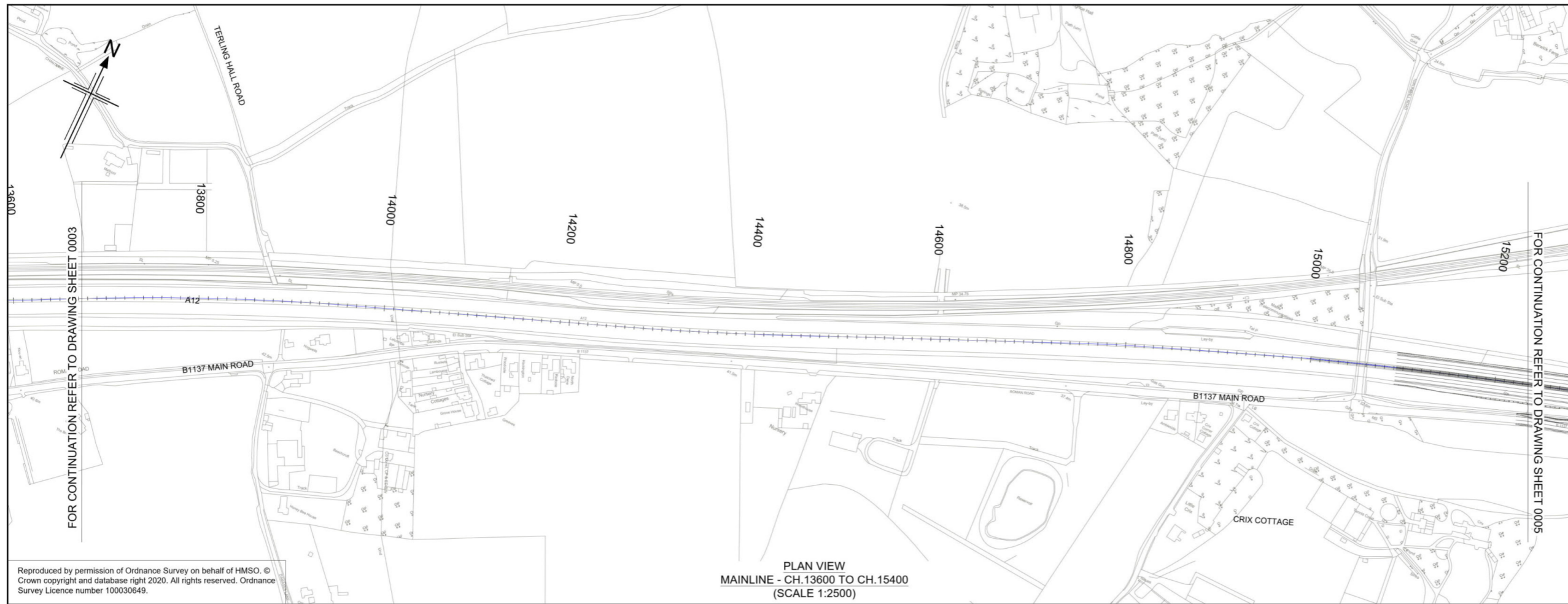
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GRADIENT	
EXISTING LEVELS	
LEVEL DIFFERENCE	
HORIZONTAL	
VERTICAL	
SUPERELEVATION	
CHAINAGE	

LONGITUDINAL SECTION
MAINLINE - CH.12100 TO CH.13600
(SCALE H=1:2500, V=1:500)

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FOR CONTINUATION REFER TO DRAWING SHEET 0002

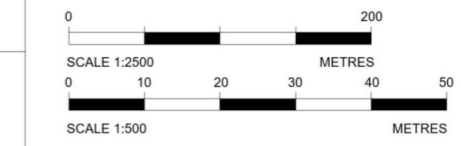
FOR CONTINUATION REFER TO DRAWING SHEET 0004



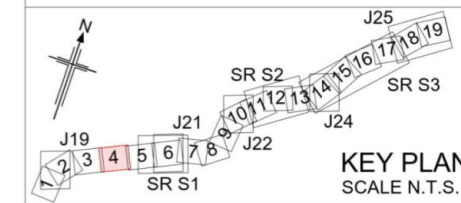
PLAN VIEW
MAINLINE - CH.13600 TO CH.15400
(SCALE 1:2500)

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HE551497-JAC-HGN-SCHW-DR- C-0029 for Junction profiles.
HE551497-JAC-HGN-SCHW-DR- C-0030 for Sideroad profiles.

- Key
- PLAN
- Chainage
 - Curve alignment
 - Straight alignment
 - Transition alignment
- PROFILE
- Existing ground
 - Proposed ground (constant gradient)
 - Proposed ground (vertical curve)



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P02	25/05/21	FOR STATUTORY CONSULTATION	SH	CA	RM	RC
Rev	Rev. Date	Purpose of revision	Drawn	Checked	Rev'd	Appr'd

Contractor: **COSTAIN** Designer: **Jacobs**
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Client: **highways england**

Project: REGIONAL DELIVERY PARTNERSHIP
A12 CHELMSFORD TO A120 WIDENING SCHEME

Drawing title: **PLAN AND PROFILE
MAINLINE
CH. 13600 TO 15400
SHEET 4 OF 19**

Drawing status: **S2 - SUITABLE FOR INFORMATION**

State Code	Preliminary		
Project Stage	PCF3	DO NOT SCALE	
Scale	1:2500	DO NOT SCALE	
Jacobs No.	B36601D1	Rev	P02
Client no.	HE551497		

Drawing number	HE551497 -	Originator	JAC	Volume	HML -
	S1	Location		Type	DR- C -0004

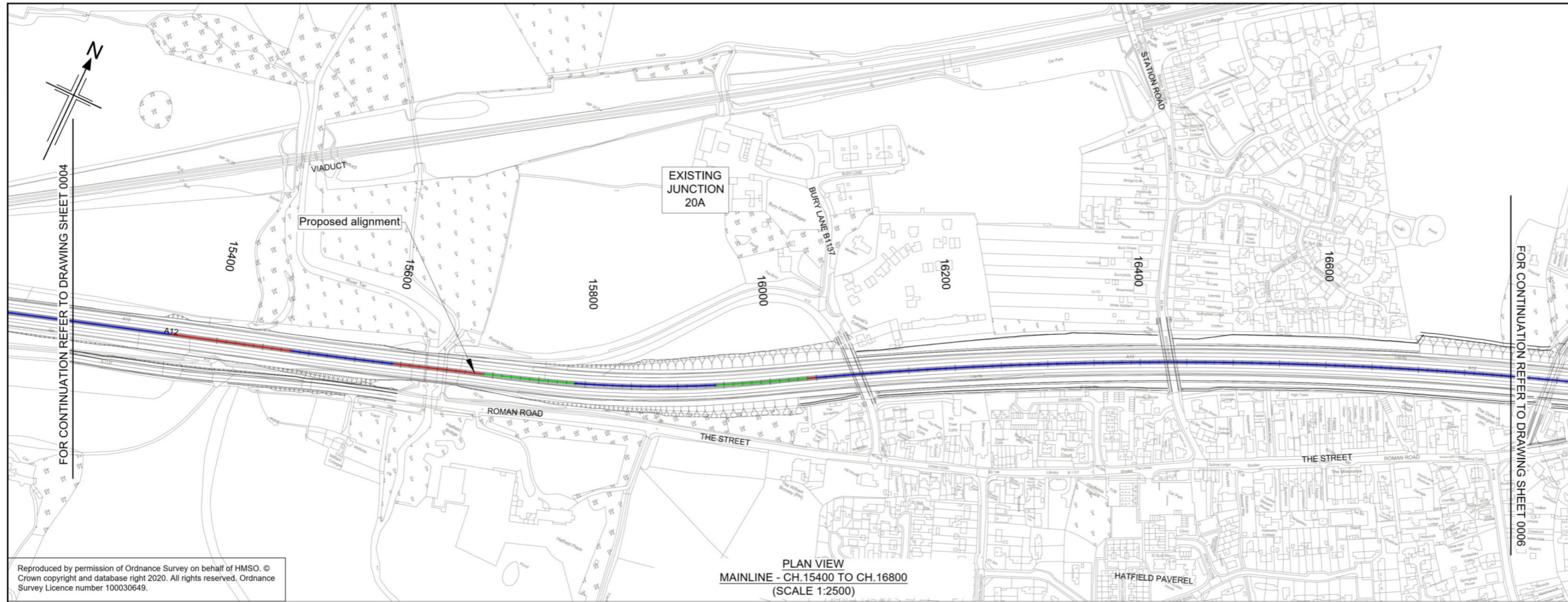
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Datum: 15.00 mAOD	FOR CONTINUATION REFER TO DRAWING SHEET 0003
PROPOSED LEVELS	
GRADIENT	
EXISTING LEVELS	
LEVEL DIFFERENCE	
HORIZONTAL	
VERTICAL	
SUPERELEVATION	
CHAINAGE	

FOR CONTINUATION REFER TO DRAWING SHEET 0005

LONGITUDINAL SECTION
MAINLINE - CH.13600 TO CH.15400
(SCALE H=1:2500, V=1:500)

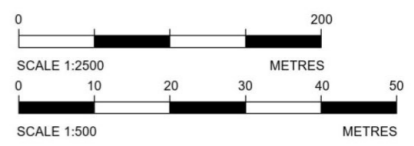
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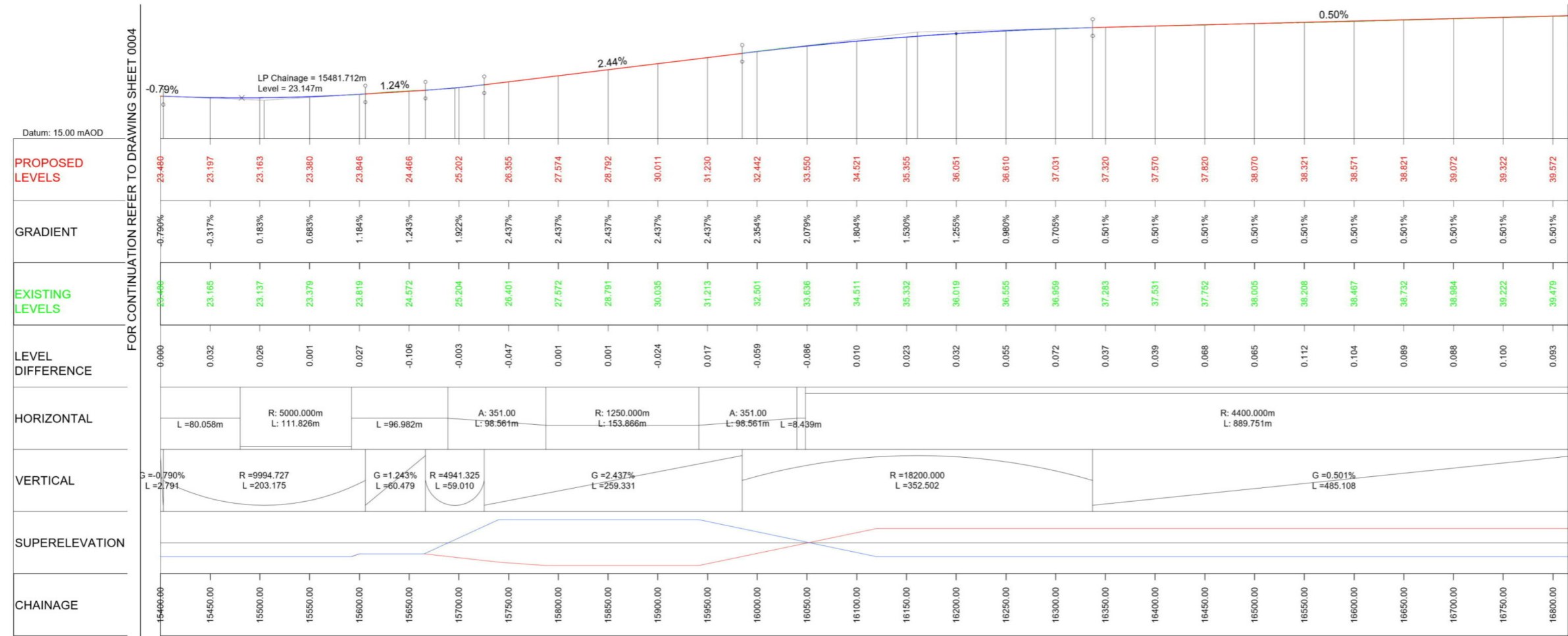
PLAN VIEW
MAINLINE - CH.15400 TO CH.16800
(SCALE 1:2500)

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HE551497-JAC-HGN-SCHW-DR-C-0029 for Junction profiles.
HE551497-JAC-HGN-SCHW-DR-C-0030 for Sideroad profiles.

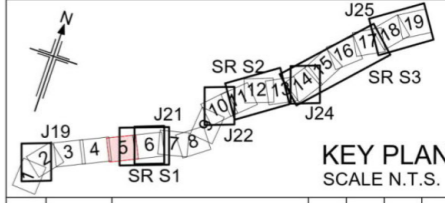
- Key
- PLAN
- Chainage
 - Curve alignment
 - Straight alignment
 - Transition alignment
- PROFILE
- Existing ground
 - Proposed ground (constant gradient)
 - Proposed ground (vertical curve)



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LONGITUDINAL SECTION
MAINLINE - CH.15400 TO CH.16800
(SCALE H=1:2500, V=1:500)



KEY PLAN
SCALE N.T.S.

P01	26/04/21	DESIGN FIX 2	SH	CA	RM	RC
P02	20/05/21	FOR STATUTORY CONSULTATION	RK	CA	ST	RM
Rev	Rev. Date	Purpose of revision	Drawn	Checked	Rev'd	Apprv'd

Contractor: **COSTAIN** Designer: **Jacobs**
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www.jacobs.com

Client: **highways england**

Project: REGIONAL DELIVERY PARTNERSHIP
A12 CHELMSFORD TO A120 WIDENING SCHEME

Drawing title: **PLAN AND PROFILE
MAINLINE
CH. 15400 TO 16800
SHEET 5 OF 19**

Drawing status: **S2 - SUITABLE FOR INFORMATION**

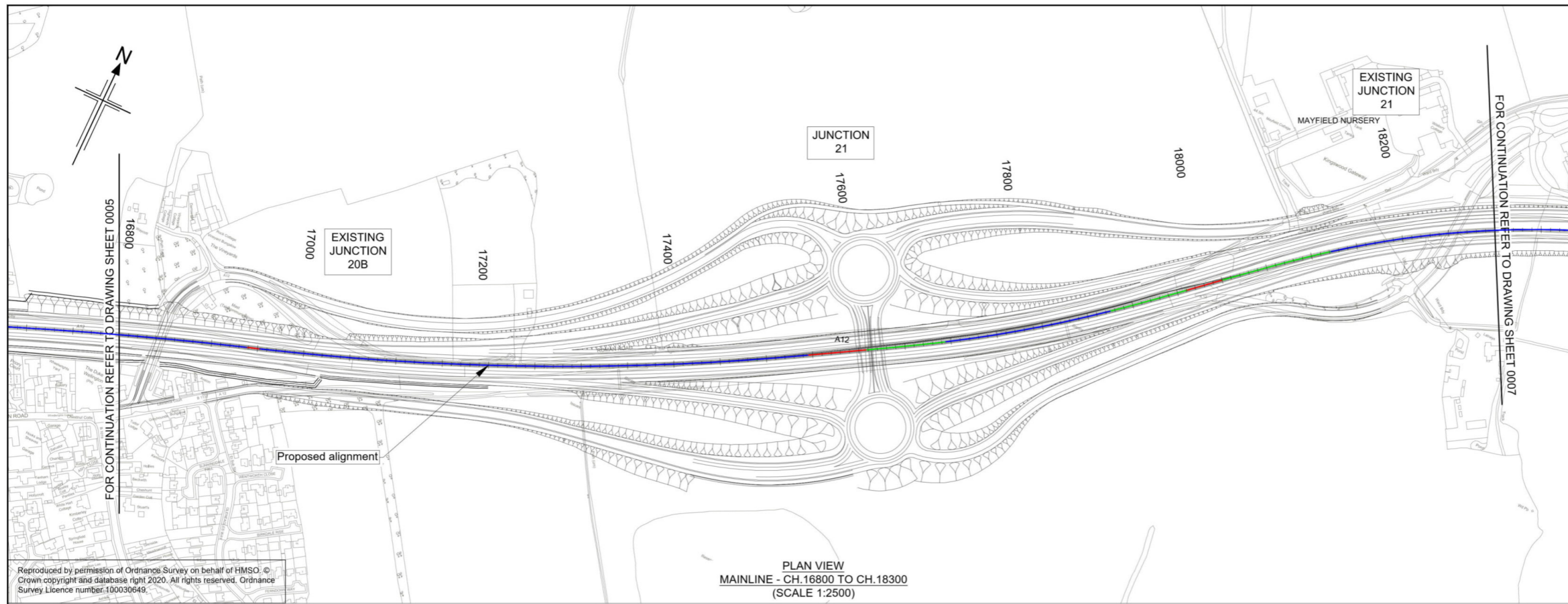
State Code	Preliminary
Project Stage	PCF3
Scale	1:2500
Jacobs No.	B36601D1
Client no.	HE551497

Drawing number: **HE551497 - JAC - HML - S1 - DR - C - 0005**

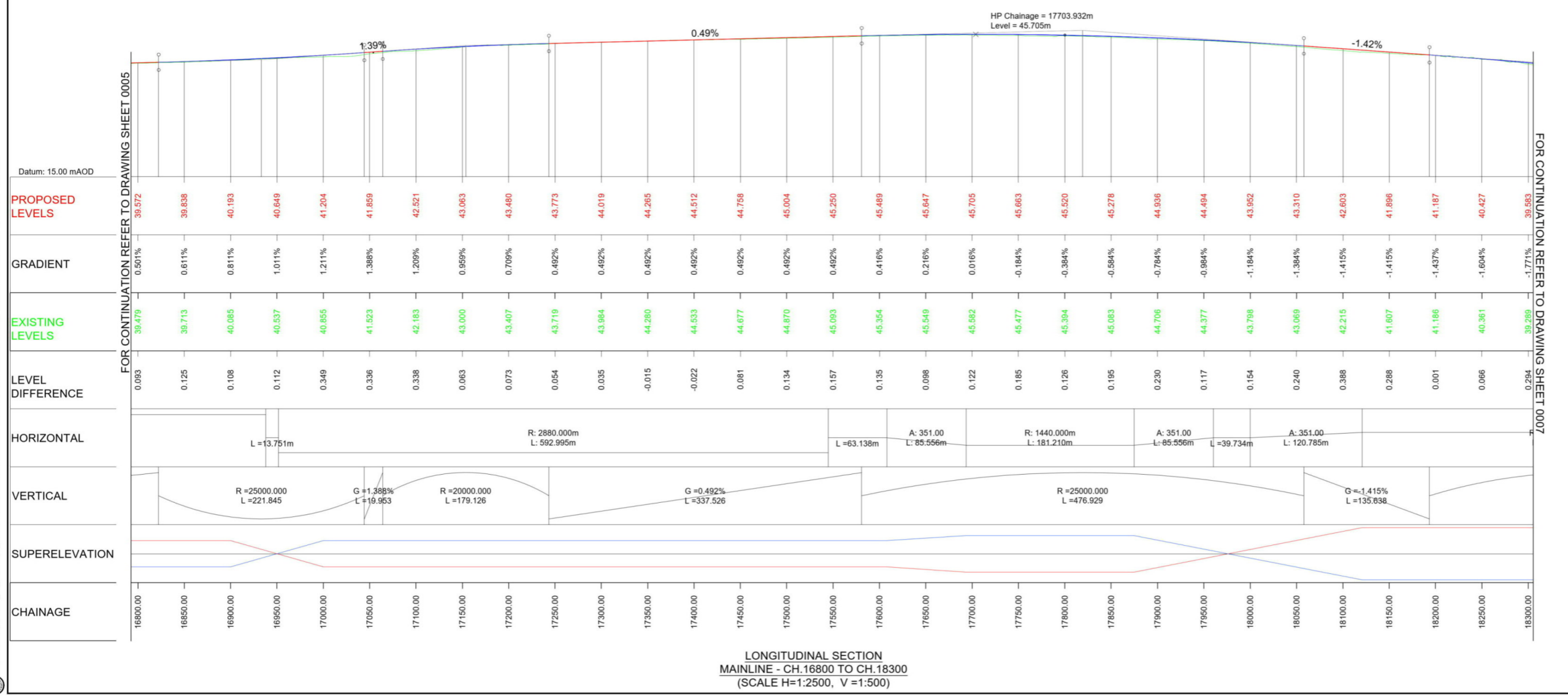
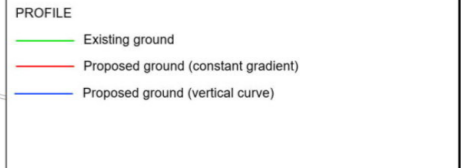
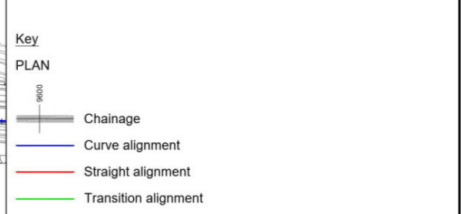
Originator: **JAC** | Volume: **-**
Location: **S1** | Type: **DR** | Role: **C** | Number: **0005**

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Rev	Rev. Date	Purpose of revision	Drawn	Checked	Rev'd	Apprv'd
P01	26/04/21	DESIGN FIX 2	SH	CA	RM	RC
P02	20/05/21	FOR STATUTORY CONSULTATION	RK	CA	ST	RM

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www.jacobs.com

Client: **highways england**

Project: REGIONAL DELIVERY PARTNERSHIP
A12 CHELMSFORD TO A120 WIDENING SCHEME

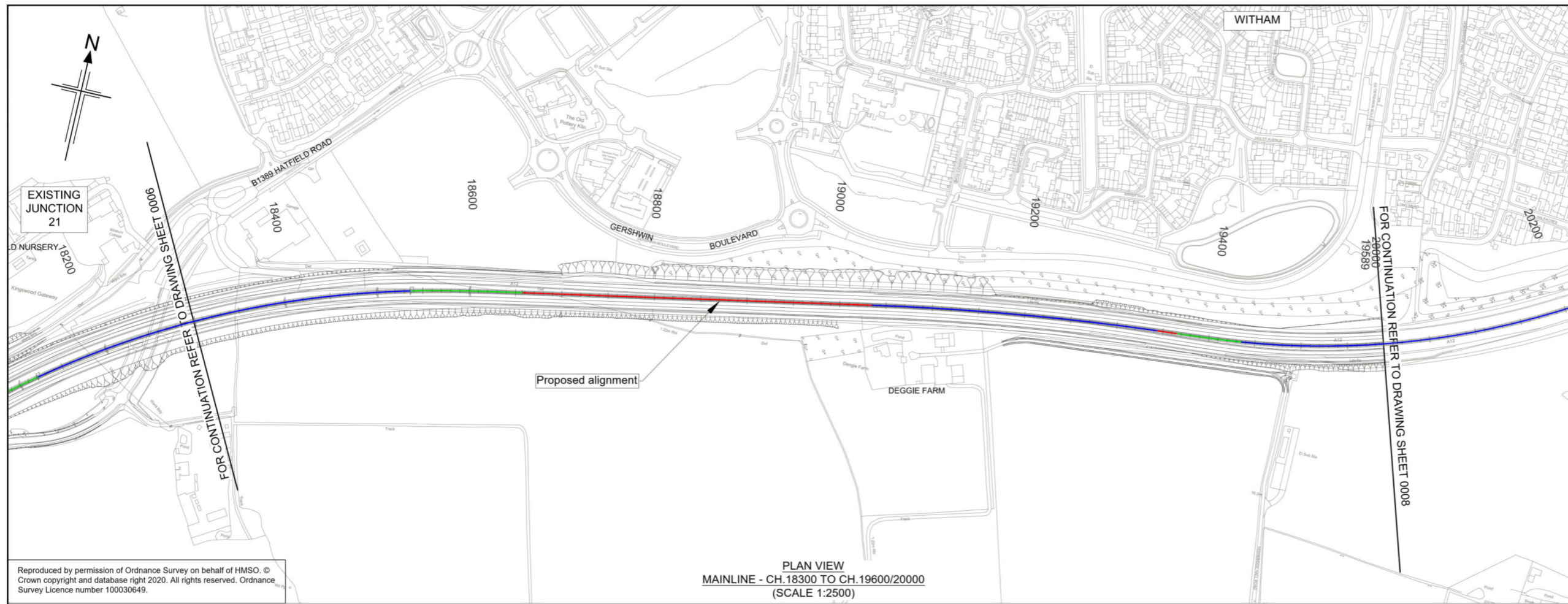
Drawing title: PLAN AND PROFILE
MAINLINE
CH. 16800 TO 18300
SHEET 6 OF 19

Drawing status: S2 - SUITABLE FOR INFORMATION

State Code: Preliminary
Project Stage: PCF3
Scale: 1:2500
DO NOT SCALE
Jacobs No.: B36601D1
Client no.: HE551497
Rev: P02

Drawing number: HE551497 - JAC - HML - S1
Originator: JAC
Volume: -DR- C-0006

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PLAN VIEW
MAINLINE - CH.18300 TO CH.19600/20000
(SCALE 1:2500)

- Notes
- This drawing shall only be used for the design element stated in the drawing title.
 - All dimensions are in metres unless noted otherwise.
 - The base mapping is based on Ordnance Survey (O/S) Data.
 - Only written dimension shall be used.
 - For Sheet Layout Plan refer to:
HE551497-JAC-HGN-SCHW-DR-C-0028 for Mainline profiles.
HE551497-JAC-HGN-SCHW-DR-C-0029 for Junction profiles.
HE551497-JAC-HGN-SCHW-DR-C-0030 for Sideroad profiles.

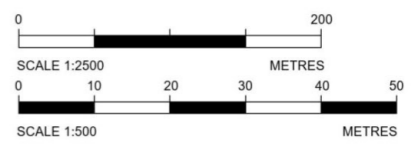
Key

PLAN

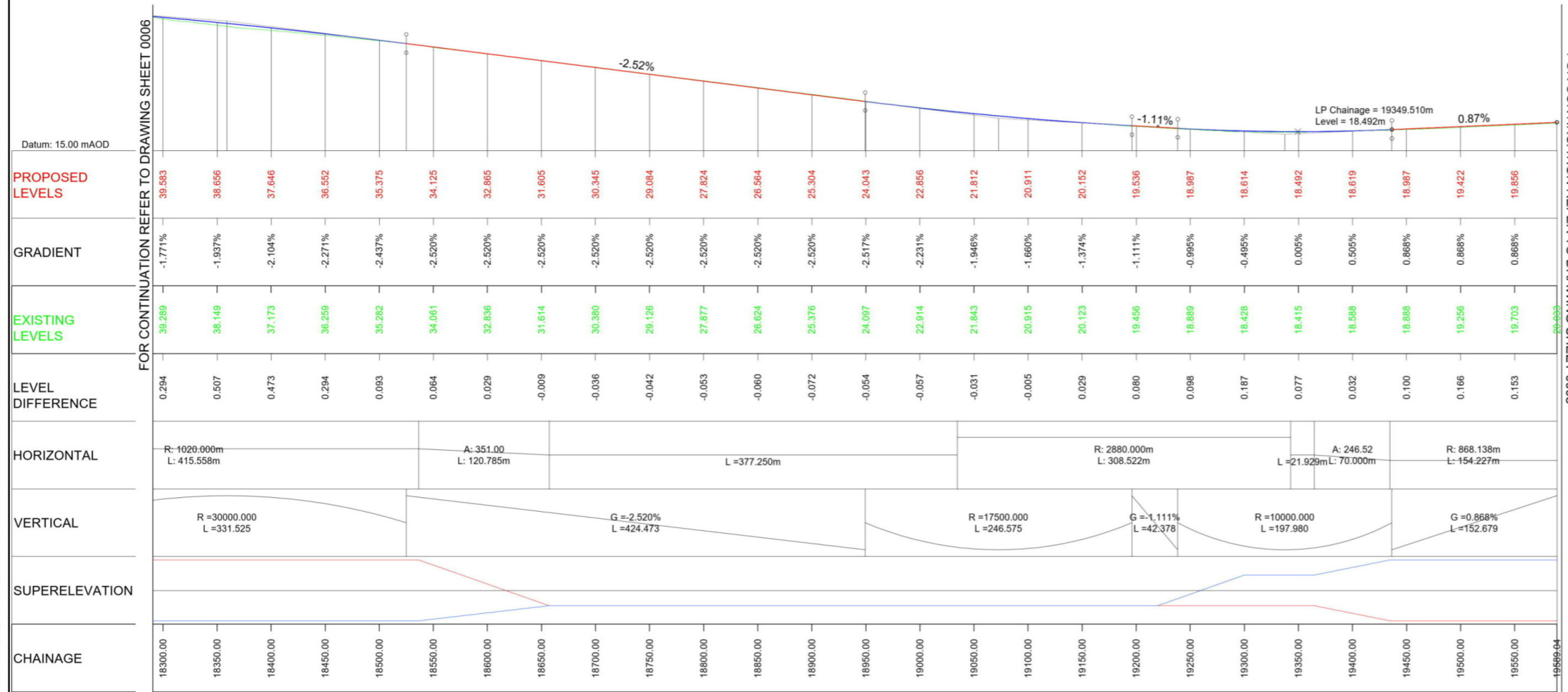
- Chainage
- Curve alignment
- Straight alignment
- Transition alignment

PROFILE

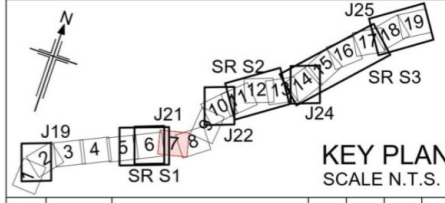
- Existing ground
- Proposed ground (constant gradient)
- Proposed ground (vertical curve)



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LONGITUDINAL SECTION
MAINLINE - CH.18300 TO CH.19600/20000
(SCALE H=1:2500, V=1:500)



KEY PLAN
SCALE N.T.S.

P01	26/04/21	DESIGN FIX 2	SH	CA	RM	RC
P02	20/05/21	FOR STATUTORY CONSULTATION	RK	CA	ST	RM
Rev	Rev. Date	Purpose of revision	Drawn	Checked	Rev'd	Apprv'd

Contractor: **COSTAIN** Designer: **Jacobs**
2nd Floor Cottons Centre, Cottons Lane
London SE1 2QG. Tel: +44 (0)203 9802000
www.jacobs.com

Client: **highways england**

Project: REGIONAL DELIVERY PARTNERSHIP
A12 CHELMSFORD TO A120 WIDENING SCHEME

Drawing title: **PLAN AND PROFILE
MAINLINE
CH. 18300 TO 19600/20000
SHEET 7 OF 19**

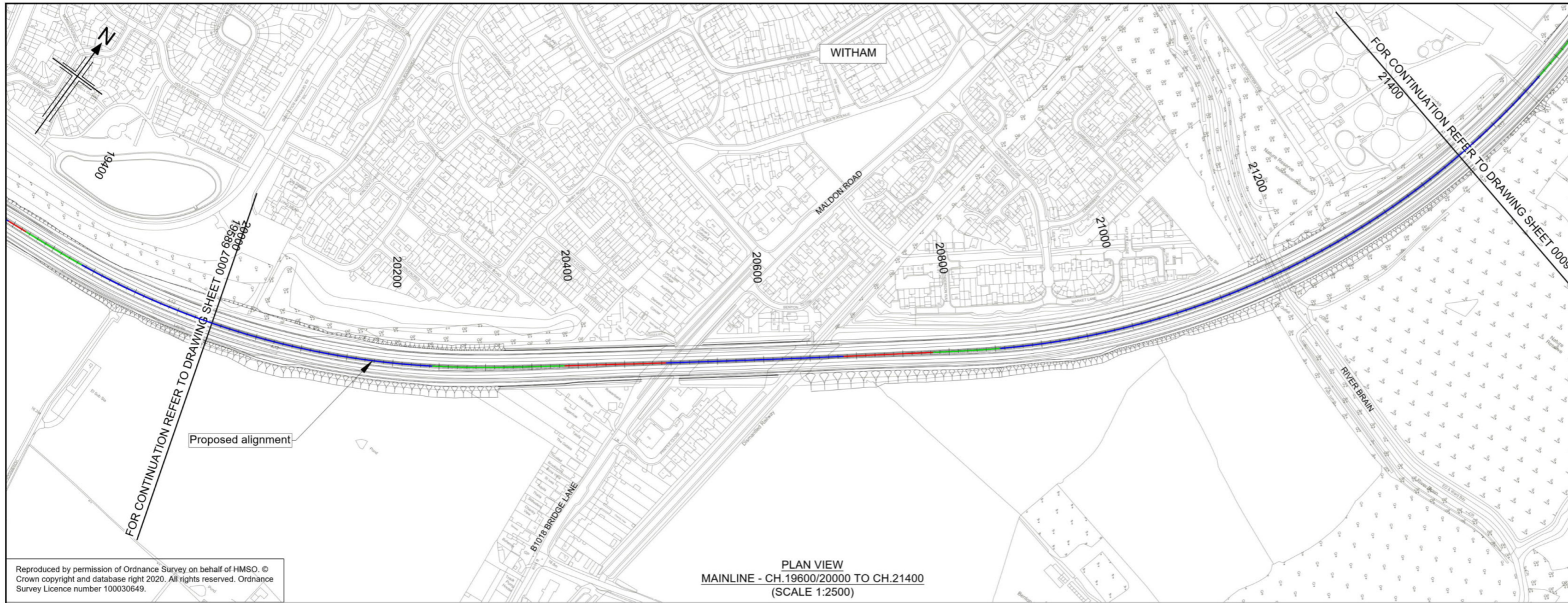
Drawing status: **S2 - SUITABLE FOR INFORMATION**

State Code	Preliminary
Project Stage	PCF3
Scale	1:2500
Jacobs No.	B36601D1
Client no.	HE551497

Drawing number	HE551497 - JAC - HML - S1	Originator	JAC	Volume	-DR- C -0007
Location		Type		Role	
				Number	

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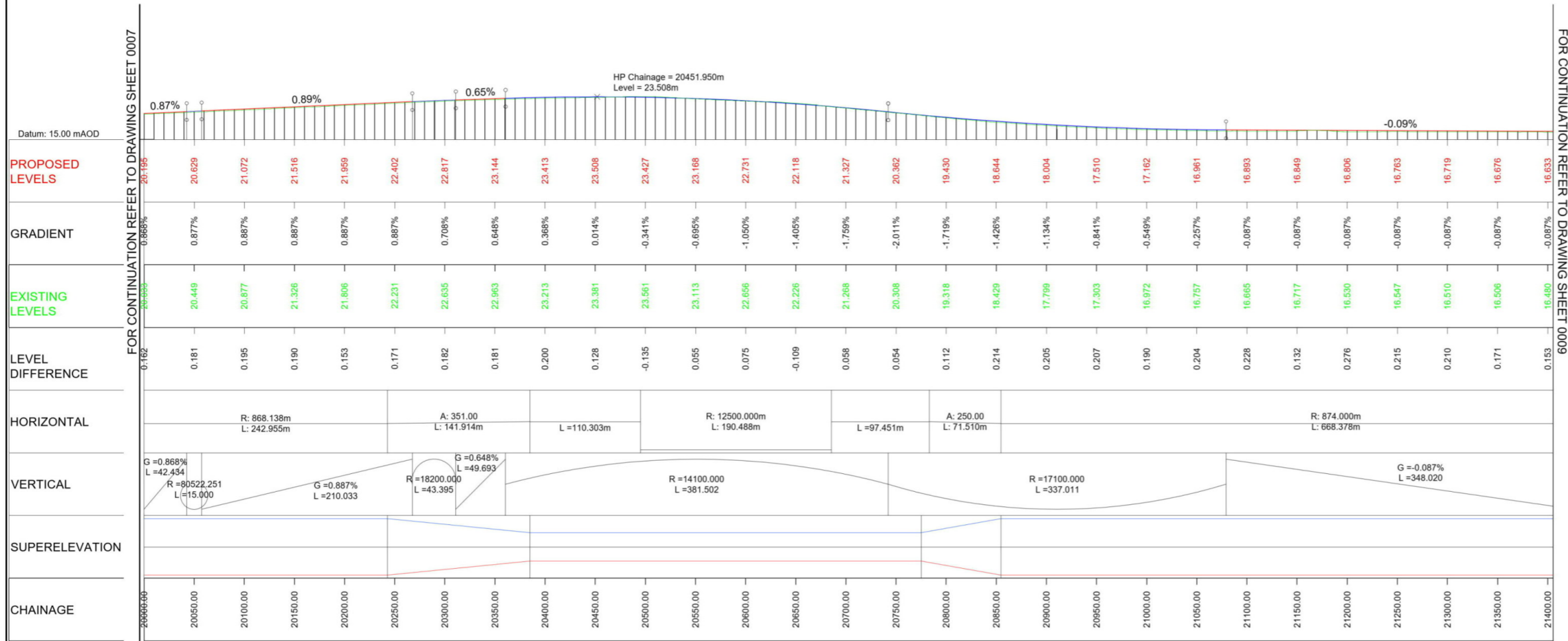
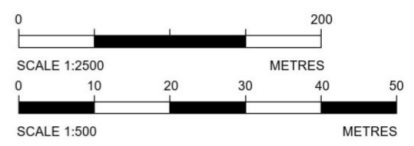


PLAN VIEW
MAINLINE - CH.19600/20000 TO CH.21400
(SCALE 1:2500)

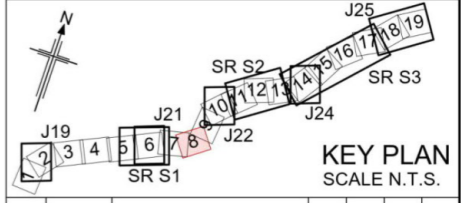
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 - Only written dimension shall be used.
 - For Sheet Layout Plan refer to:
HE551497-JAC-HGN-SCHW-DR-C-0028 for Mainline profiles.
HE551497-JAC-HGN-SCHW-DR-C-0029 for Junction profiles.
HE551497-JAC-HGN-SCHW-DR-C-0030 for Sideroad profiles.

- Key
- PLAN
- Chainage
 - Curve alignment
 - Straight alignment
 - Transition alignment
- PROFILE
- Existing ground
 - Proposed ground (constant gradient)
 - Proposed ground (vertical curve)



LONGITUDINAL SECTION
MAINLINE - CH.19600/20000 TO CH.21400
(SCALE H=1:2500, V=1:500)



Rev	Rev. Date	Purpose of revision	Drawn	Checked	Rev'd	Apprv'd
P01	26/04/21	DESIGN FIX 2	SH	CA	RM	RC
P02	20/05/21	FOR STATUTORY CONSULTATION	RK	CA	ST	RM

Contractor: **COSTAIN** Designer: **Jacobs**
2nd Floor Cottons Centre, Cottons Lane
London SE1 2QG. Tel: +44 (0)203 9802000
www.jacobs.com

Client: **highways england**

Project: REGIONAL DELIVERY PARTNERSHIP
A12 CHELMSFORD TO A120 WIDENING SCHEME

Drawing title: **PLAN AND PROFILE
MAINLINE
CH. 19600/20000 TO 21400
SHEET 8 OF 19**

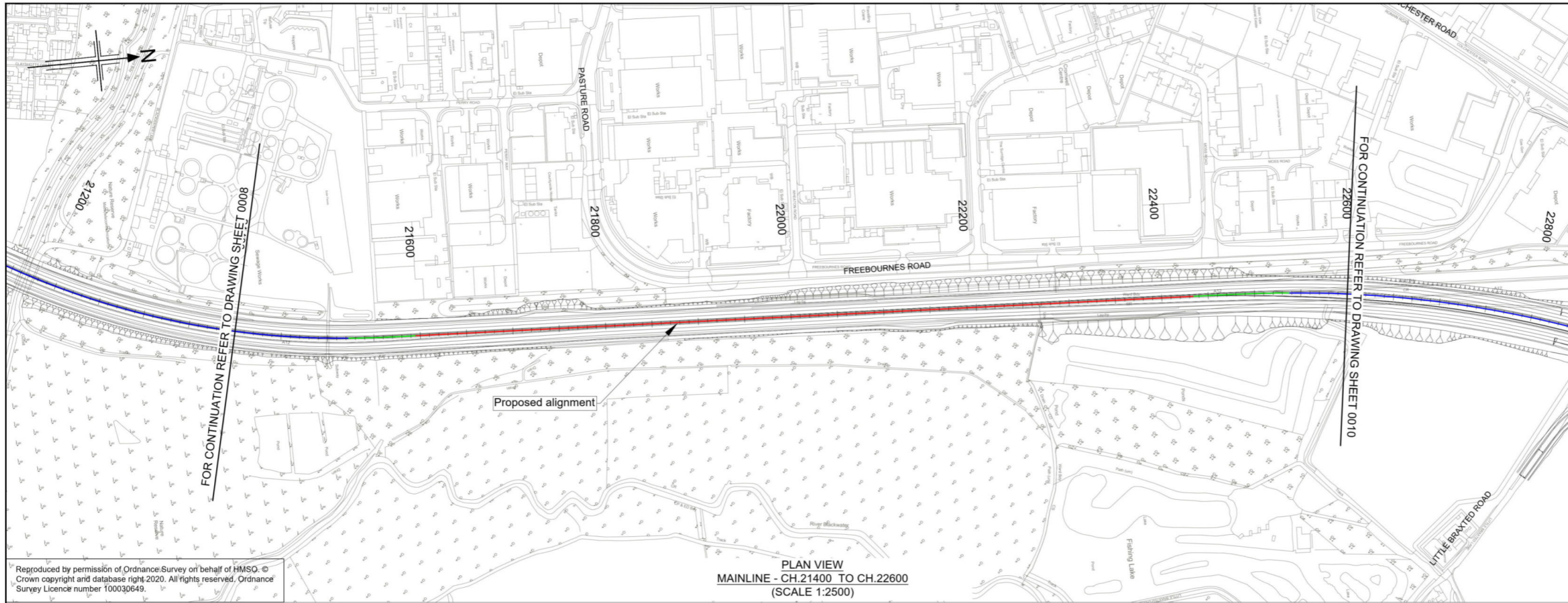
Drawing status: **S2 - SUITABLE FOR INFORMATION**

State Code	Preliminary
Project Stage	PCF3
Scale	1:2500
Jacobs No.	B36601D1
Client no.	HE551497

Drawing number	HE551497 - JAC - HML - S2	Originator	JAC	Volume	-DR- C -0001
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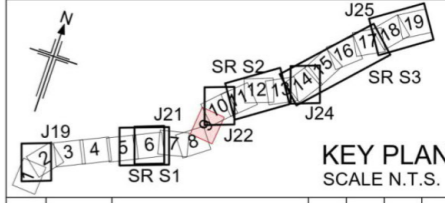
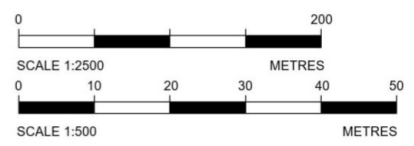


PLAN VIEW
MAINLINE - CH.21400 TO CH.22600
(SCALE 1:2500)

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 4. Only written dimension shall be used.
 5. For Sheet Layout Plan refer to:
HE551497-JAC-HGN-SCHW-DR-C-0028 for Mainline profiles.
HE551497-JAC-HGN-SCHW-DR-C-0029 for Junction profiles.
HE551497-JAC-HGN-SCHW-DR-C-0030 for Sideroad profiles.

- Key
- PLAN
- Chainage
 - Curve alignment
 - Straight alignment
 - Transition alignment
- PROFILE
- Existing ground
 - Proposed ground (constant gradient)
 - Proposed ground (vertical curve)



P01	26/04/21	DESIGN FIX 2	SH	CA	RM	RC
P02	20/05/21	FOR STATUTORY CONSULTATION	RK	CA	ST	RM
Rev	Rev. Date	Purpose of revision	Drawn	Checked	Rev'd	Apprv'd

Contractor: **COSTAIN** Designer: **JACOBS**
2nd Floor Cottons Centre, Cottons Lane
London SE1 2QG. Tel: +44 (0)203 9802000
www.jacobs.com

Client: **highways england**

Project: REGIONAL DELIVERY PARTNERSHIP
A12 CHELMSFORD TO A120 WIDENING SCHEME

Drawing title: **PLAN AND PROFILE
MAINLINE
CH. 21400 TO 22600
SHEET 9 OF 19**

Drawing status: **S2 - SUITABLE FOR INFORMATION**

State Code	Preliminary
Project Stage	PCF3
Scale	1:2500
Jacobs No.	B36601D1
Client no.	HE551497
DO NOT SCALE	Rev P02

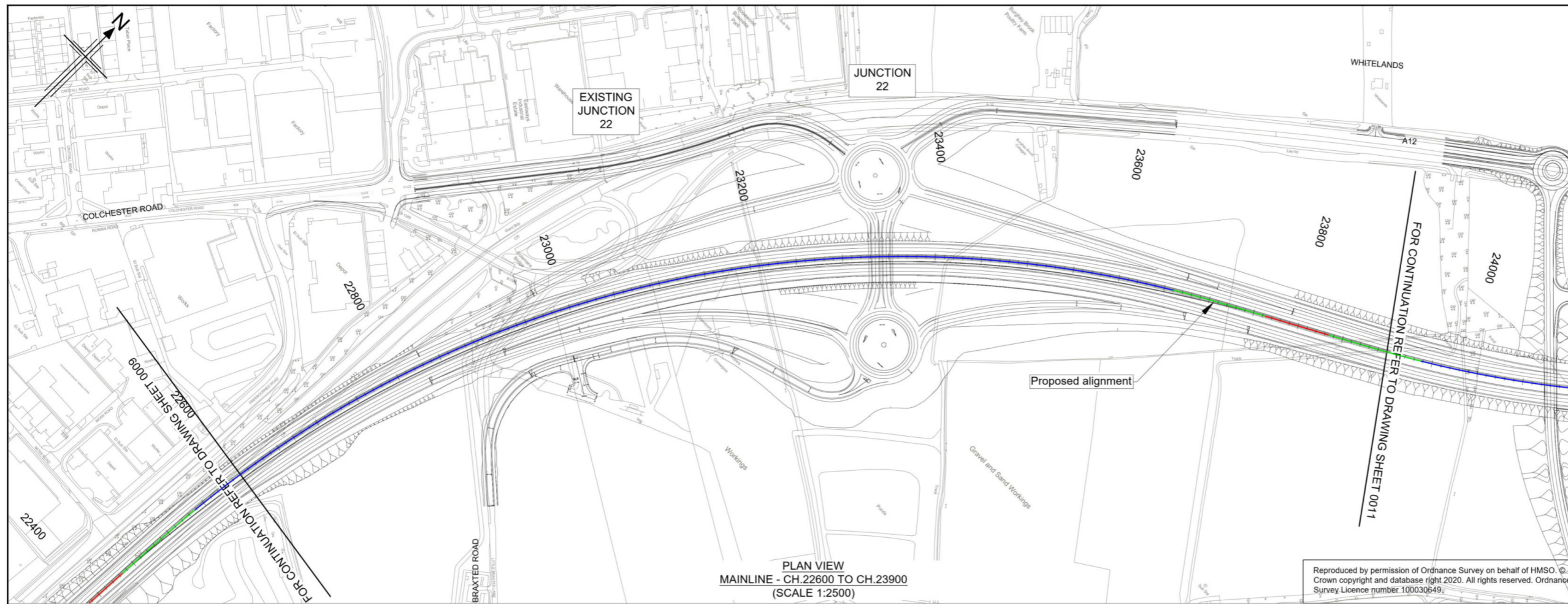
Drawing number	HE551497 - S2	Originator	JAC	Volume	HML - DR- C -0002
Location		Type		Role	
				Number	

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Datum: 15.00 mAOD		LP Chainage = 22082.631m Level = 15.626m 0.00%																										
PROPOSED LEVELS	16.633	16.584	16.488	16.339	16.137	15.929	15.774	15.676	15.637	15.634	15.632	15.631	15.629	15.627	15.626	15.626	15.626	15.633	15.682	15.777	15.919	16.108	16.343	16.625	16.919			
GRADIENT	-0.087%	-0.136%	-0.245%	-0.353%	-0.437%	-0.368%	-0.252%	-0.137%	-0.022%	-0.004%	-0.004%	-0.004%	-0.004%	-0.004%	0.000%	0.000%	0.000%	0.051%	0.144%	0.237%	0.330%	0.424%	0.517%	0.610%	0.680%			
EXISTING LEVELS	16.480	16.396	16.277	16.122	15.987	15.818	15.673	15.569	15.520	15.514	15.532	15.527	15.534	15.534	15.516	15.521	15.520	15.519	15.557	15.631	15.780	15.980	16.196	16.396	16.530			
LEVEL DIFFERENCE	0.153	0.188	0.211	0.217	0.149	0.110	0.100	0.107	0.116	0.120	0.100	0.104	0.095	0.093	0.110	0.105	0.106	0.114	0.125	0.146	0.139	0.127	0.147	0.228	1.240			
HORIZONTAL	A: 250.00 L: 71.510m		L = 840.021m												A: 351.00 L: 102.668m													
VERTICAL	R = 46130.600 L = 161.814		G = -0.437% L = 30.692		R = 43325.236 L = 187.968		G = -0.004% L = 260.530		R = 399325.607 L = 15.000		G = 0.000% L = 139.573		R = 53631.043 L = 364.721															
SUPERELEVATION	[Graph showing superlevation curves across the chainage]																											
CHAINAGE	21400.00	21450.00	21500.00	21550.00	21600.00	21650.00	21700.00	21750.00	21800.00	21850.00	21900.00	21950.00	22000.00	22050.00	22100.00	22150.00	22200.00	22250.00	22300.00	22350.00	22400.00	22450.00	22500.00	22550.00	22600.00			

LONGITUDINAL SECTION
MAINLINE - CH.21400 TO CH.22600
(SCALE H=1:2500, V=1:500)

C:\pwworking\jacobs_uk_highways_ssa\khare\0155545\HE551497-JAC-HML-S2-DR-C-0002.dwg - 20/05/2021 16:32:24 - A1Frame - KhareR



- Notes
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 - All dimensions are in metres unless noted otherwise.
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 - Only written dimension shall be used.
 - For Sheet Layout Plan refer to:
HE551497-JAC-HGN-SCHW-DR- C-0028 for Mainline profiles.
HE551497-JAC-HGN-SCHW-DR- C-0029 for Junction profiles.
HE551497-JAC-HGN-SCHW-DR- C-0030 for Sideroad profiles.

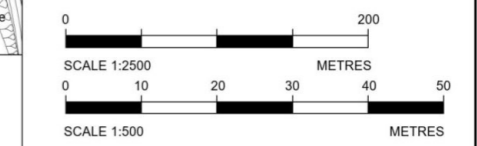
Key

PLAN

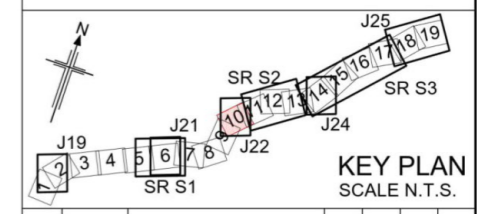
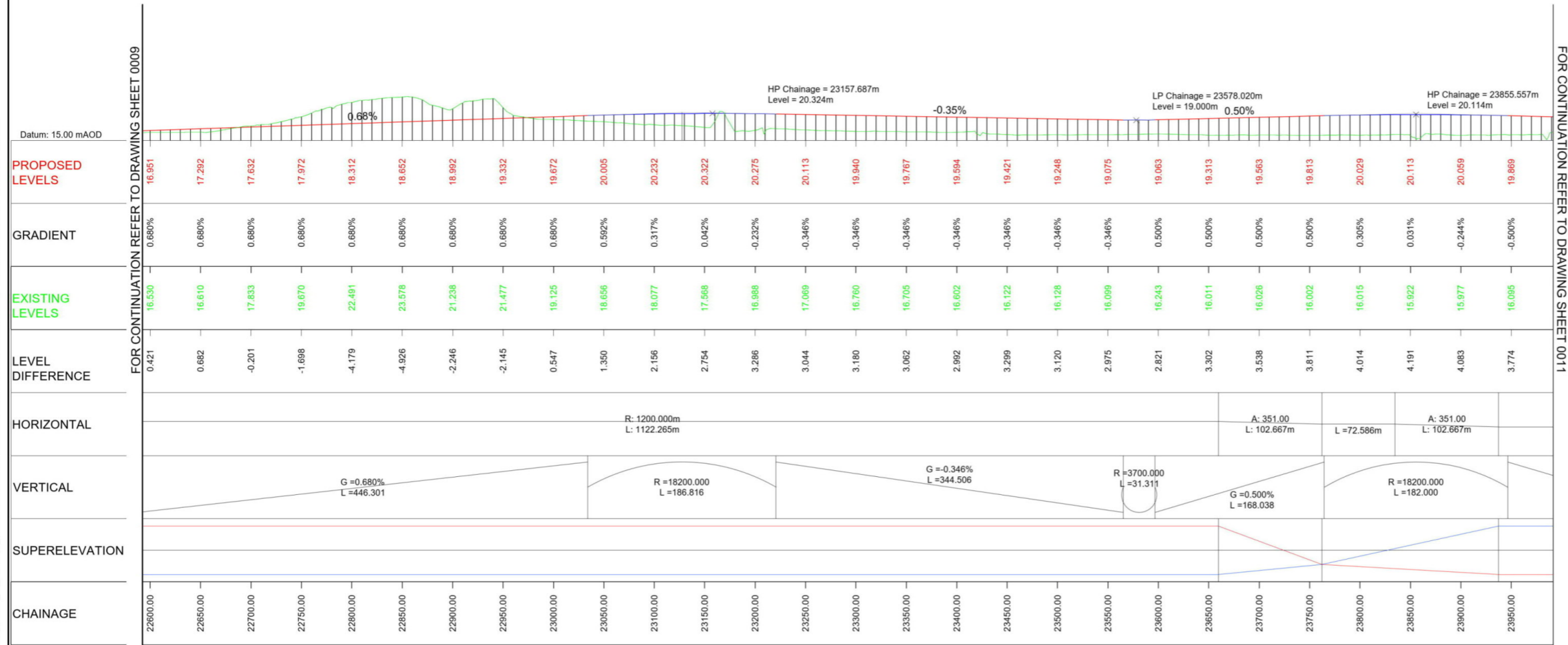
- Chainage
- Curve alignment
- Straight alignment
- Transition alignment

PROFILE

- Existing ground
- Proposed ground (constant gradient)
- Proposed ground (vertical curve)



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P01	26/04/21	DESIGN FIX 2	SH	CA	RM	RC
P02	20/05/21	FOR STATUTORY CONSULTATION	RK	CA	ST	RM
Rev	Rev. Date	Purpose of revision	Drawn	Checked	Rev'd	Apprv'd

Contractor: **COSTAIN** Designer: **JACOBS**
2nd Floor Cottons Centre, Cottons Lane, London SE1 2QG. Tel: +44 (0)203 9802000 www.jacobs.com

Client: **highways england**

Project: REGIONAL DELIVERY PARTNERSHIP
A12 CHELMSFORD TO A120 WIDENING SCHEME

Drawing title: **PLAN AND PROFILE MAINLINE CH. 22600 TO 23900 SHEET 10 OF 19**

Drawing status: **S2 - SUITABLE FOR INFORMATION**

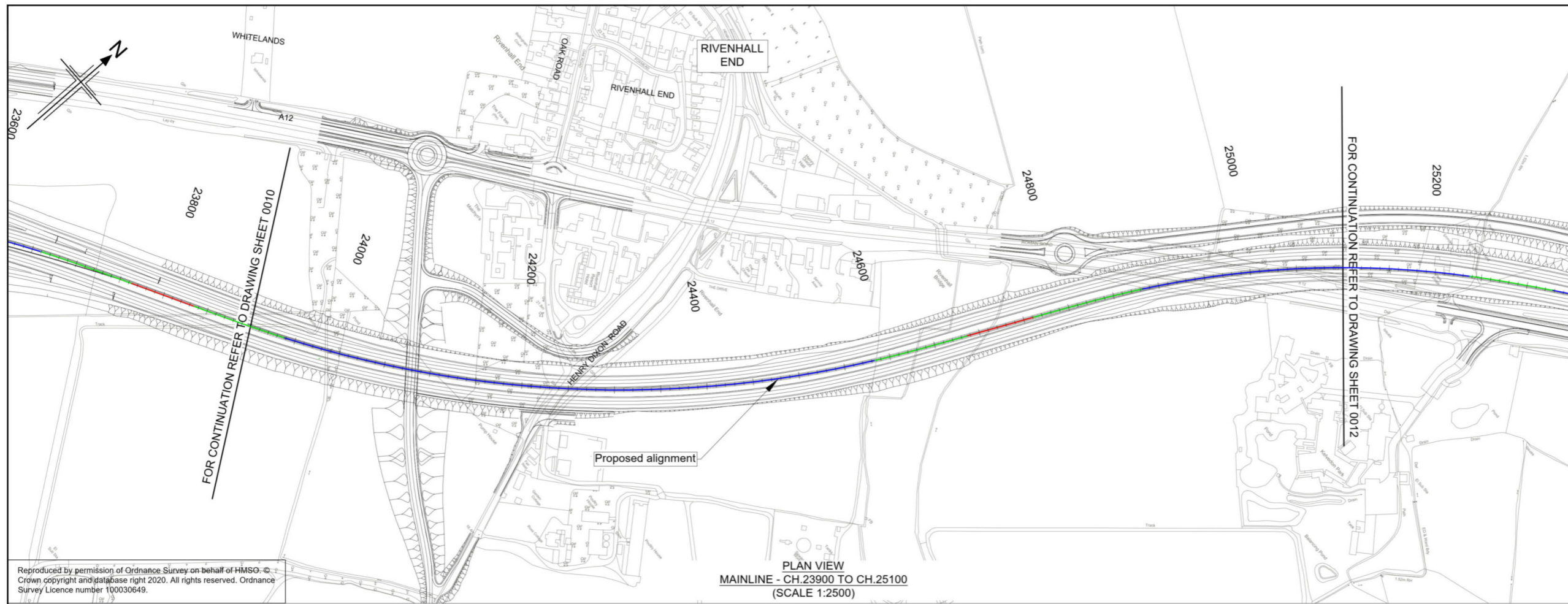
State Code: Preliminary
Project Stage: PCF3
Scale: 1:2500
Jacobus No.: B36601D1
Client no.: HE551497

DO NOT SCALE
Rev P02

Drawing number: HE551497 - JAC - HML - S2 - DR - C - 0003
Originator: JAC
Volume: HML - DR - C - 0003

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PLAN VIEW
MAINLINE - CH.23900 TO CH.25100
(SCALE 1:2500)

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 3. The base mapping is based on Ordnance Survey (O/S) Data.
 4. Only written dimension shall be used.
 5. For Sheet Layout Plan refer to:
HE551497-JAC-HGN-SCHW-DR- C-0028 for Mainline profiles.
HE551497-JAC-HGN-SCHW-DR- C-0029 for Junction profiles.
HE551497-JAC-HGN-SCHW-DR- C-0030 for Sideroad profiles.

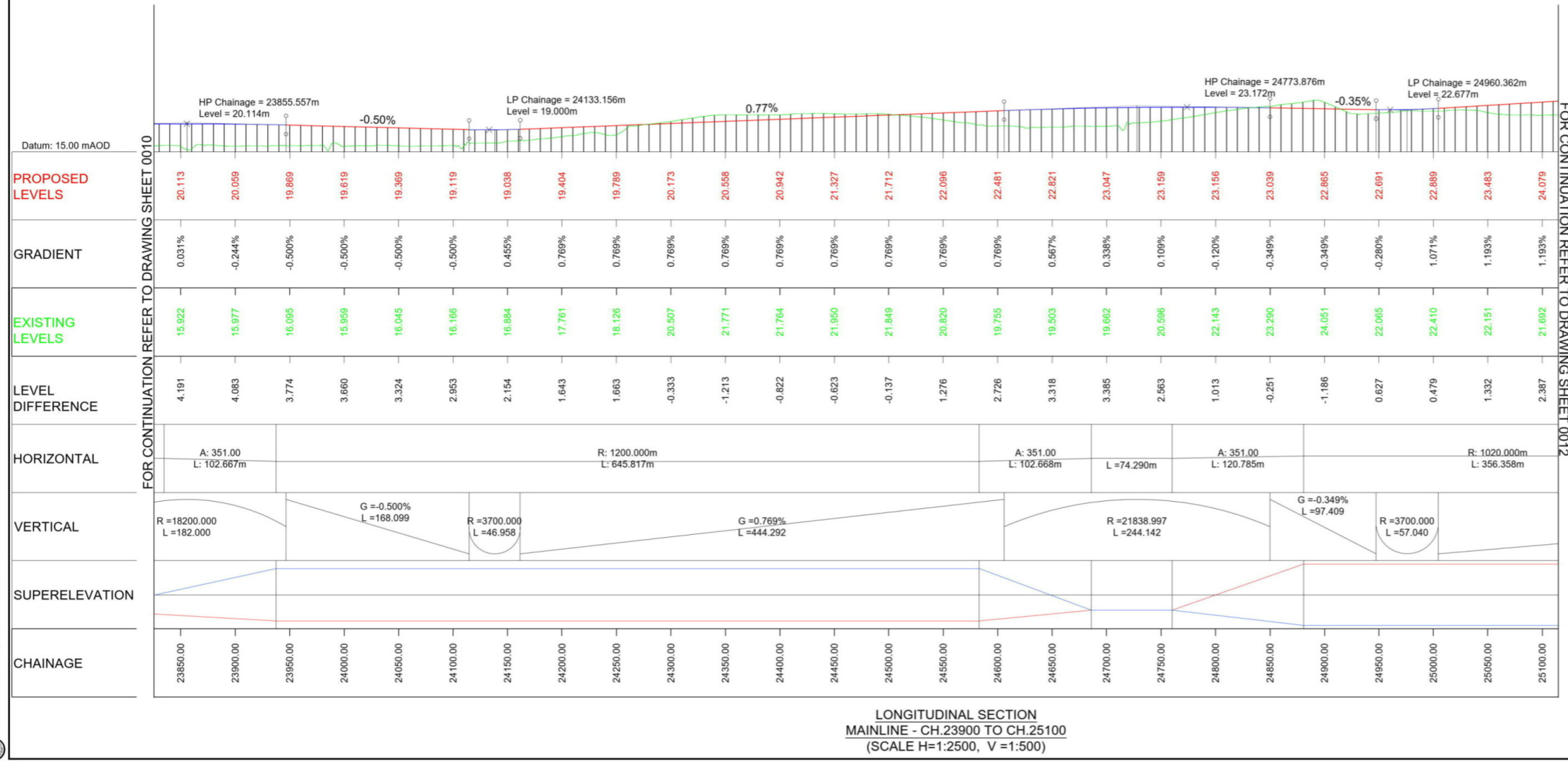
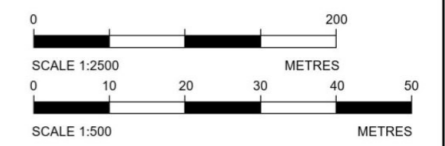
Key

PLAN

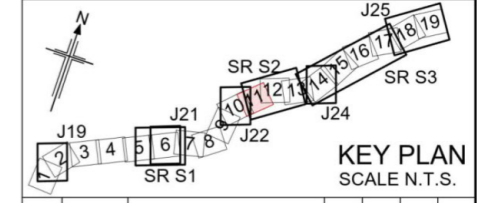
- Chainage
- Curve alignment
- Straight alignment
- Transition alignment

PROFILE

- Existing ground
- Proposed ground (constant gradient)
- Proposed ground (vertical curve)



LONGITUDINAL SECTION
MAINLINE - CH.23900 TO CH.25100
(SCALE H=1:2500, V=1:500)



KEY PLAN
SCALE N.T.S.

P01	26/04/21	DESIGN FIX 2	SH	CA	RM	RC
P02	20/05/21	FOR STATUTORY CONSULTATION	RK	CA	ST	RM
Rev	Rev. Date	Purpose of revision	Drawn	Checked	Rev'd	Apprv'd

Contractor: **COSTAIN** Designer: **Jacobs**
2nd Floor Cottons Centre, Cottons Lane
London SE1 2QG. Tel: +44 (0)203 9802000
www.jacobs.com

Client: **highways england**

Project: REGIONAL DELIVERY PARTNERSHIP
A12 CHELMSFORD TO A120 WIDENING SCHEME

Drawing title: **PLAN AND PROFILE
MAINLINE
CH. 23900 TO 25100
SHEET 11 OF 19**

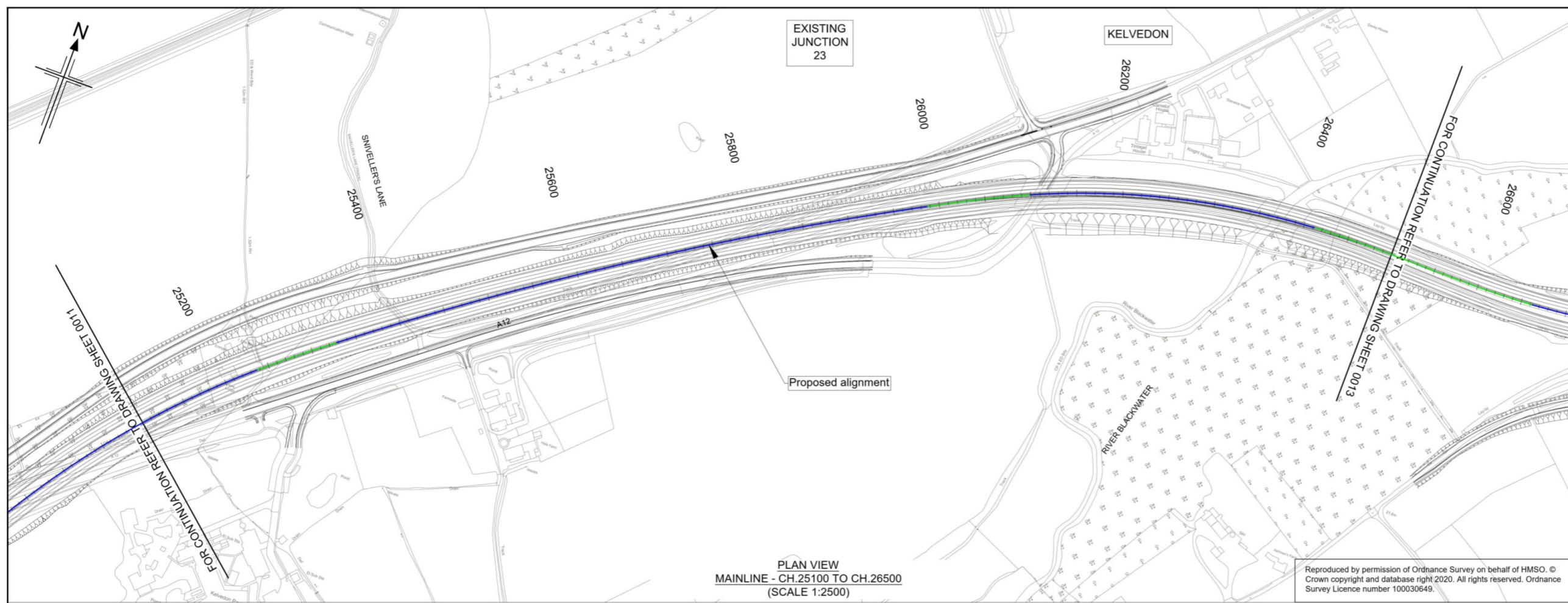
Drawing status: **S2 - SUITABLE FOR INFORMATION**

State Code	Preliminary
Project Stage	PCF3
Scale	1:2500
Jacobs No.	B36601D1
Client no.	HE551497

HE551497 - JAC - HML - S2 -DR- C -0004

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Notes

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- All dimensions are in metres unless noted otherwise.
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- Only written dimension shall be used.
- For Sheet Layout Plan refer to:
 - HE551497-JAC-HGN-SCHW-DR-C-0028 for Mainline profiles.
 - HE551497-JAC-HGN-SCHW-DR-C-0029 for Junction profiles.
 - HE551497-JAC-HGN-SCHW-DR-C-0030 for Sideroad profiles.

Key

PLAN

- Chainage
- Curve alignment
- Straight alignment
- Transition alignment

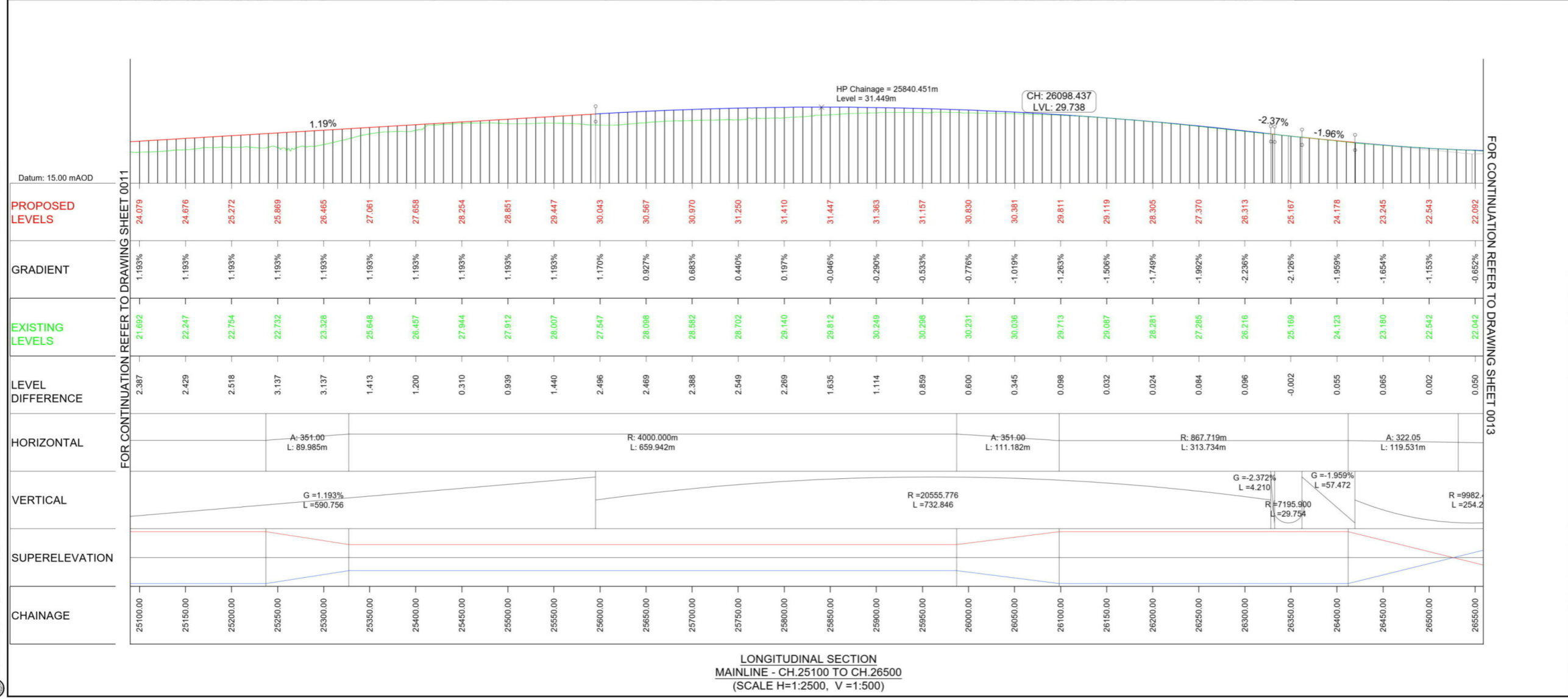
PROFILE

- Existing ground
- Proposed ground (constant gradient)
- Proposed ground (vertical curve)

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0 200
SCALE 1:2500 METRES

0 10 20 30 40 50
SCALE 1:500 METRES



FOR CONTINUATION REFER TO DRAWING SHEET 0011

FOR CONTINUATION REFER TO DRAWING SHEET 0013

KEY PLAN
SCALE N.T.S.

J19 SR S1 J21 SR S2 J22 SR S3 J24 J25

P01	26/04/21	DESIGN FIX 2	SH	CA	RM	RC
P02	20/05/21	FOR STATUTORY CONSULTATION	RK	CA	ST	RM
Rev	Rev. Date	Purpose of revision	Drawn	Checked	Rev'd	Apprv'd

Contractor: **COSTAIN** Designer: **Jacobs**
2nd Floor Cottons Centre, Cottons Lane
London SE1 2QG. Tel: +44 (0)203 9802000
www.jacobs.com

Client: **highways england**

Project: **REGIONAL DELIVERY PARTNERSHIP
A12 CHELMSFORD TO A120 WIDENING SCHEME**

Drawing title: **PLAN AND PROFILE
MAINLINE
CH. 25100 TO 26500
SHEET 12 OF 19**

Drawing status: **S2 - SUITABLE FOR INFORMATION**

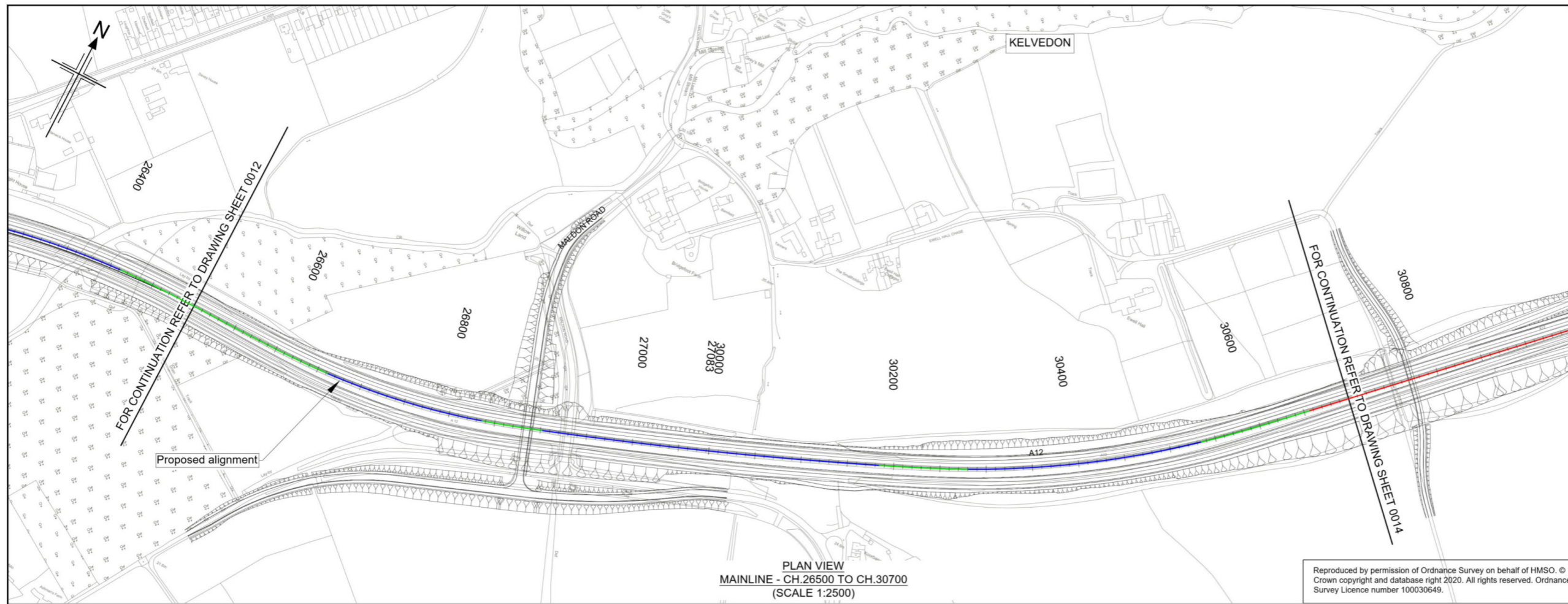
State Code	Preliminary
Project Stage	PCF3
Scale	1:2500
Jacobs No.	B36601D1
Client no.	HE551497

DO NOT SCALE
Rev P02

Drawing number: HE551497 - JAC - HML - S2 - DR - C - 0005
PIN Originator Volume
S2 - DR - C - 0005

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- Notes**
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 - Only written dimension shall be used.
 - For Sheet Layout Plan refer to:
 - HE551497-JAC-HGN-SCHW-DR-C-0028 for Mainline profiles.
 - HE551497-JAC-HGN-SCHW-DR-C-0029 for Junction profiles.
 - HE551497-JAC-HGN-SCHW-DR-C-0030 for Sideroad profiles.

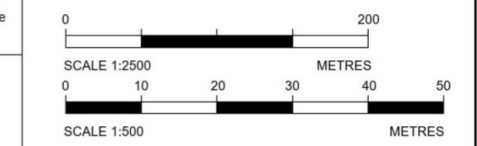
Key

PLAN

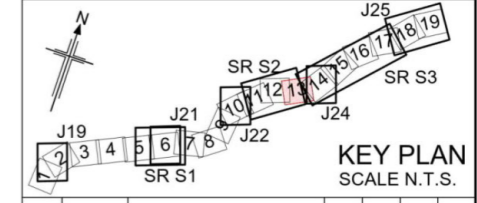
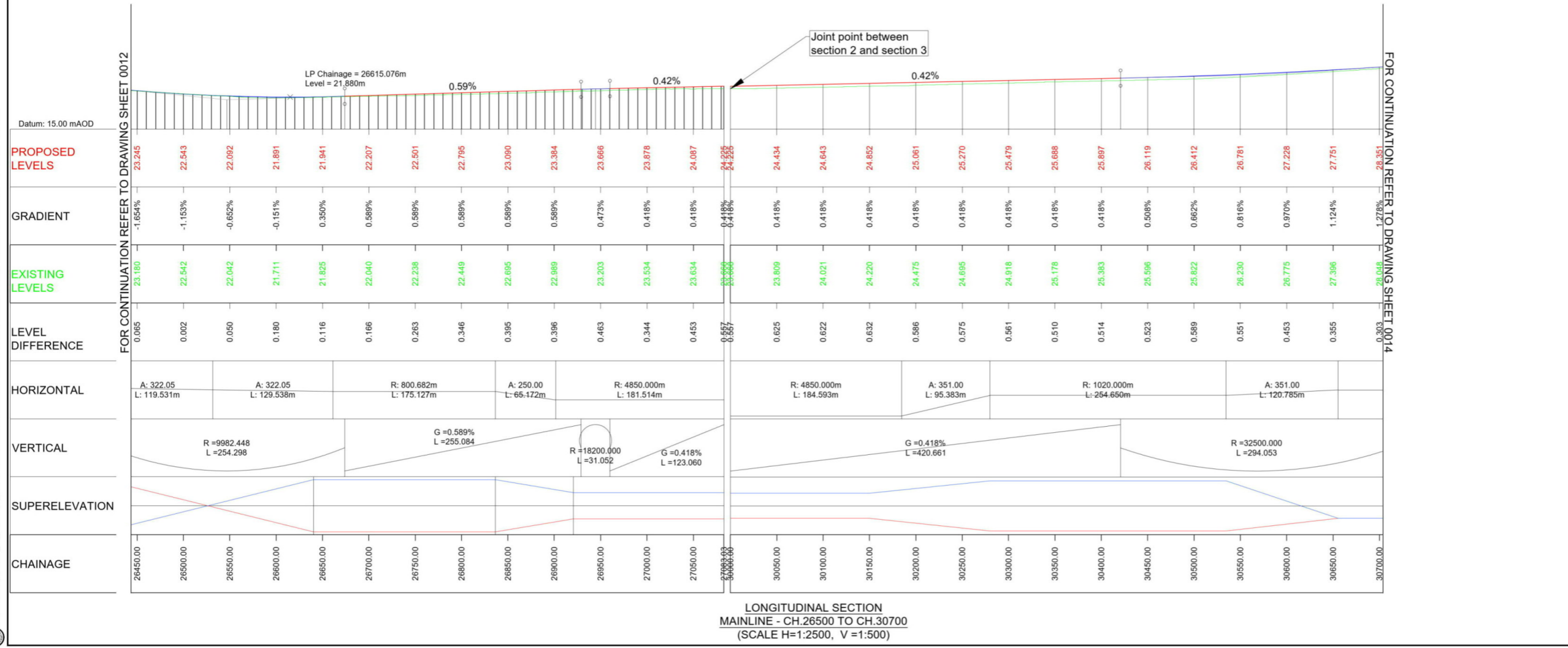
- Chainage
- Curve alignment
- Straight alignment
- Transition alignment

PROFILE

- Existing ground
- Proposed ground (constant gradient)
- Proposed ground (vertical curve)

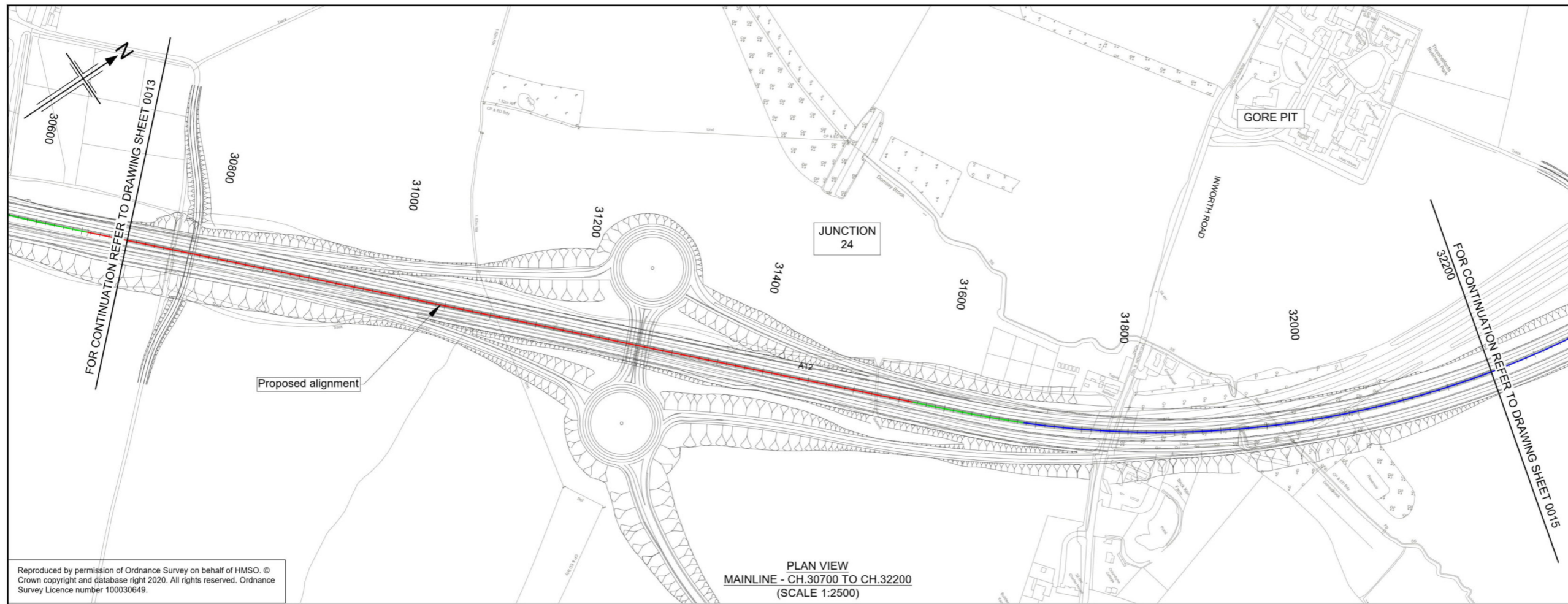


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Contractor:	COSTAIN	Designer:	Jacobs 2nd Floor Cottons Centre, Cottons Lane London SE1 2QG. Tel: +44 (0)203 9802000 www.jacobs.com
Client:	highways england		
Project:	REGIONAL DELIVERY PARTNERSHIP A12 CHELMSFORD TO A120 WIDENING SCHEME		
Drawing title:	PLAN AND PROFILE MAINLINE CH. 26500 TO 30700 SHEET 13 OF 19		
Drawing status:	S2 - SUITABLE FOR INFORMATION		
State Code:	Preliminary		
Project Stage:	PCF3		
Scale:	1:2500		
Jacobs No.:	B36601D1	Rev	DO NOT SCALE
Client no.:	HE551497	Rev	P02
Drawing number:	HE551497 - JAC - HML - S2	Originator:	JAC - HML - DR - C - 0006
PIN:	JAC	Volume:	DR - C - 0006
Location:	S2	Type:	DR - C - 0006
Role:	DR - C - 0006	Number:	DR - C - 0006

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 - Only written dimension shall be used.
 - For Sheet Layout Plan refer to:
HE551497-JAC-HGN-SCHW-DR-C-0028 for Mainline profiles.
HE551497-JAC-HGN-SCHW-DR-C-0029 for Junction profiles.
HE551497-JAC-HGN-SCHW-DR-C-0030 for Sideroad profiles.

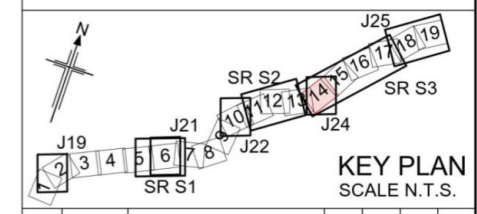
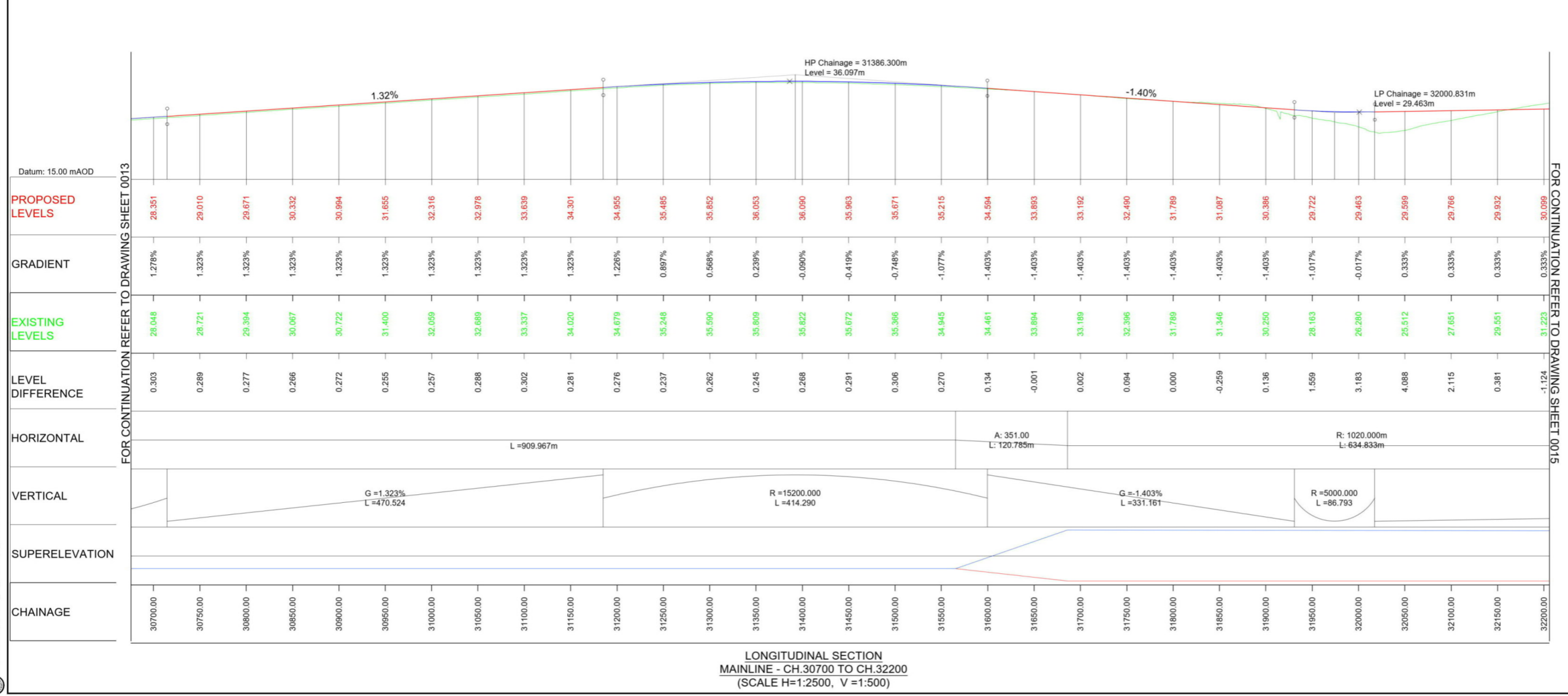
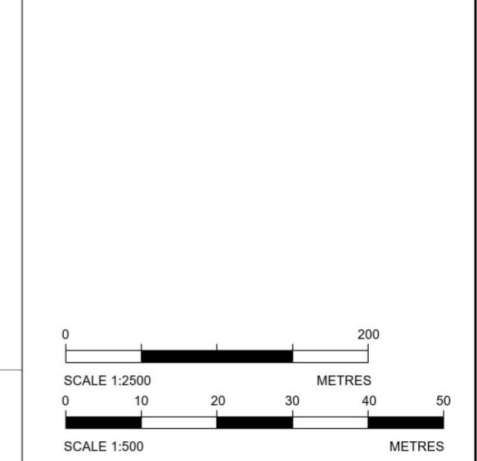
Key

PLAN

- Chainage
- Curve alignment
- Straight alignment
- Transition alignment

PROFILE

- Existing ground
- Proposed ground (constant gradient)
- Proposed ground (vertical curve)



P01	26/04/21	DESIGN FIX 2	SH	CA	RM	RC
P02	20/05/21	FOR STATUTORY CONSULTATION	RK	CA	ST	RM
Rev	Rev. Date	Purpose of revision	Drawn	Checked	Rev'd	Appr'd

Contractor: **COSTAIN** Designer: **Jacobs**
2nd Floor Cottons Centre, Cottons Lane
London SE1 2QG. Tel: +44 (0)203 9802000
www.jacobs.com

Client: **highways england**

Project: REGIONAL DELIVERY PARTNERSHIP
A12 CHELMSFORD TO A120 WIDENING SCHEME

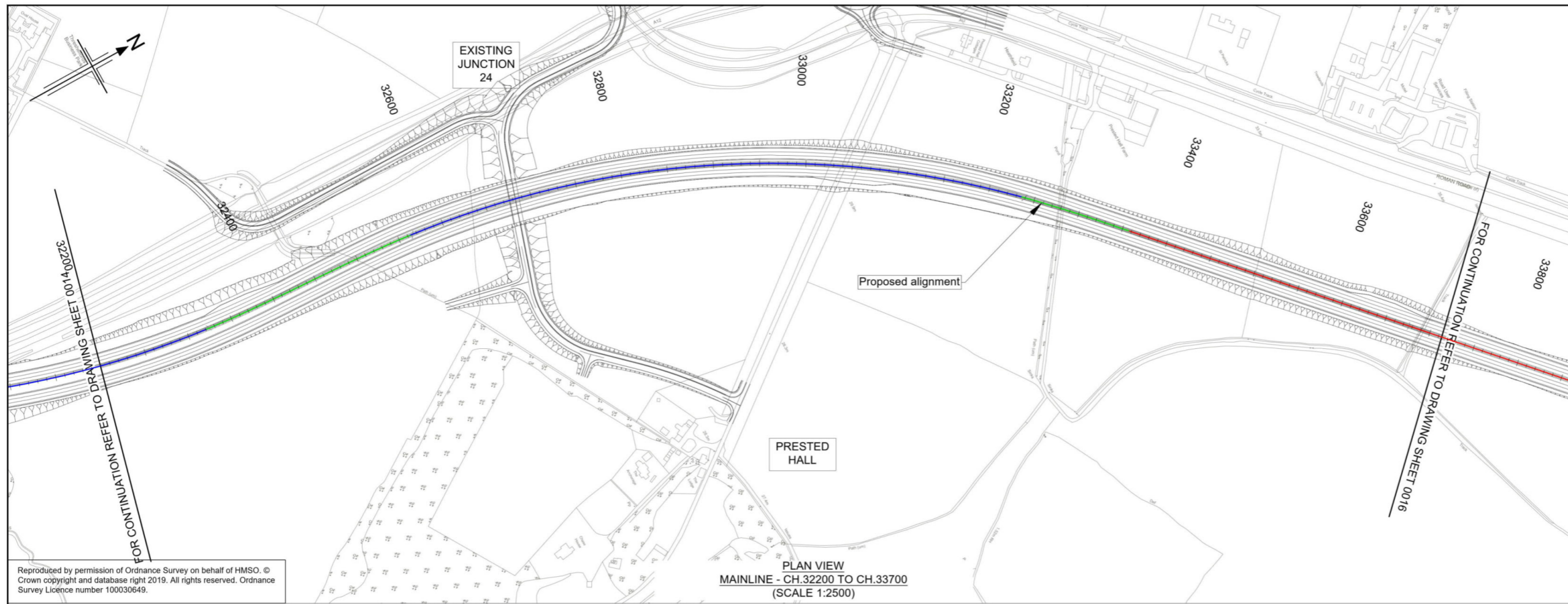
Drawing title: **PLAN AND PROFILE
MAINLINE
CH. 30700 TO 32200
SHEET 14 OF 19**

Drawing status: **S2 - SUITABLE FOR INFORMATION**

State Code: Preliminary
Project Stage: PCF3
Scale: 1:2500
DO NOT SCALE
Jacobs No.: B36601D1
Rev: P02
Client no.: HE551497

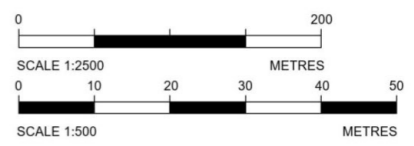
Drawing number: HE551497 - JAC - HML - S3 - DR - C - 0001

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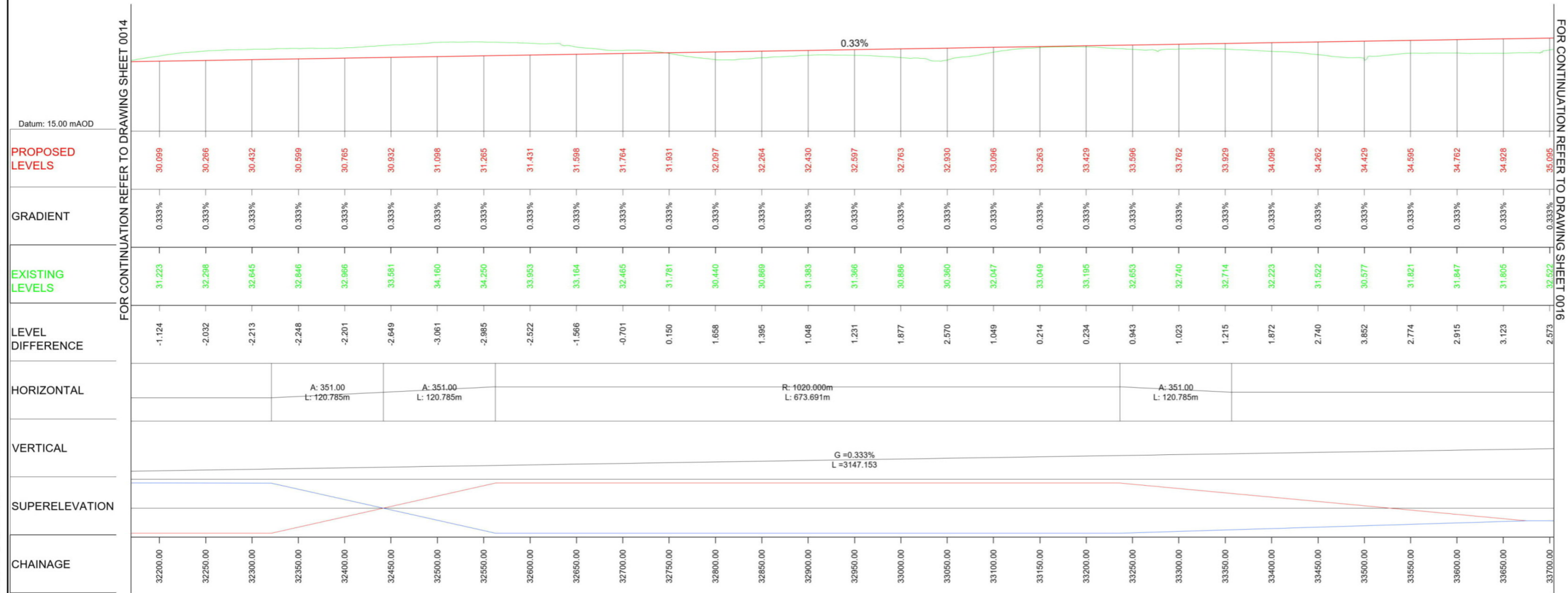


- Notes
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 - Only written dimension shall be used.
 - For Sheet Layout Plan refer to:
HE551497-JAC-HGN-SCHW-DR-C-0028 for Mainline profiles.
HE551497-JAC-HGN-SCHW-DR-C-0029 for Junction profiles.
HE551497-JAC-HGN-SCHW-DR-C-0030 for Sideroad profiles.

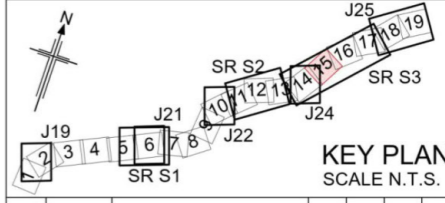
- Key
- PLAN
- Chainage
 - Curve alignment
 - Straight alignment
 - Transition alignment
- PROFILE
- Existing ground
 - Proposed ground (constant gradient)
 - Proposed ground (vertical curve)



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LONGITUDINAL SECTION
MAINLINE - CH.32200 TO CH.33700
(SCALE H=1:2500, V=1:500)



P01	26/04/21	DESIGN FIX 2	SH	CA	RM	RC
P02	20/05/21	FOR STATUTORY CONSULTATION	RK	CA	ST	RM
Rev	Rev. Date	Purpose of revision	Drawn	Checked	Rev'd	Apprv'd

Contractor: **COSTAIN** Designer: **Jacobs**
2nd Floor Cottons Centre, Cottons Lane
London SE1 2QG. Tel: +44 (0)203 9802000
www.jacobs.com

Client: **highways england**

Project: REGIONAL DELIVERY PARTNERSHIP
A12 CHELMSFORD TO A120 WIDENING SCHEME

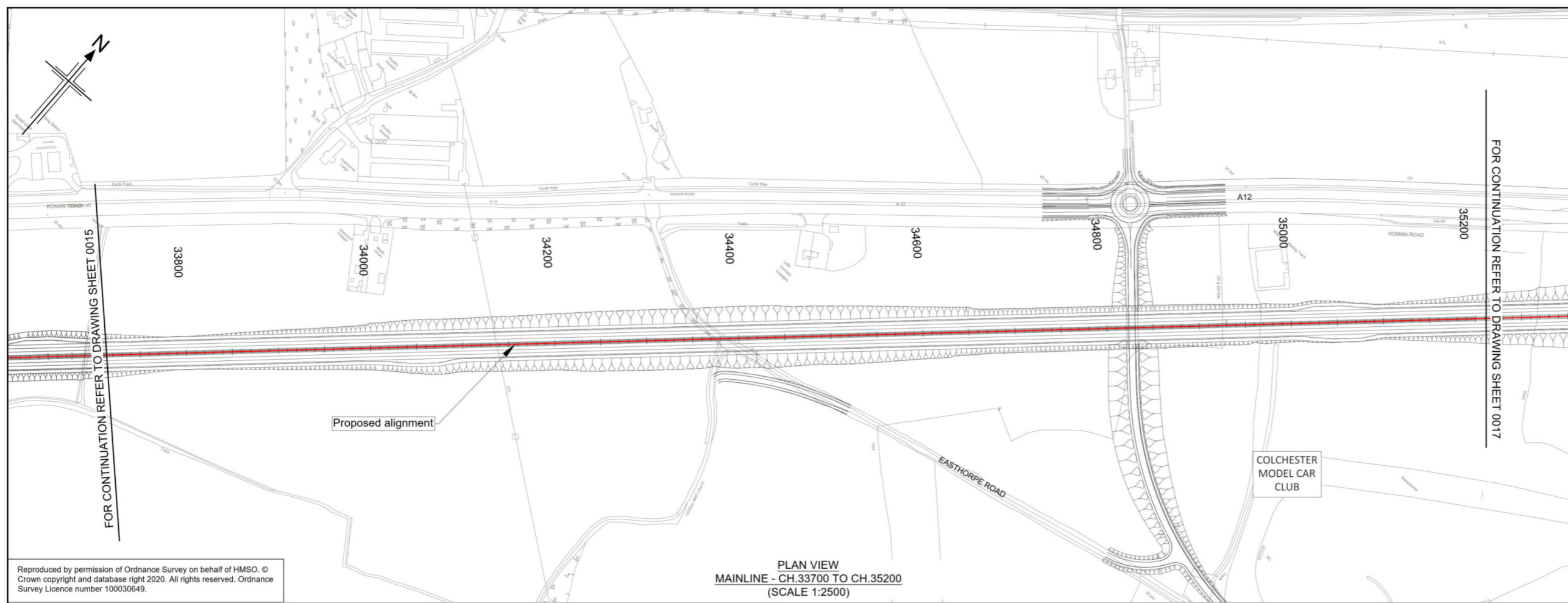
Drawing title: **PLAN AND PROFILE
MAINLINE
CH. 32200 TO 33700
SHEET 15 OF 19**

Drawing status: **S2 - SUITABLE FOR INFORMATION**

State Code	Preliminary
Project Stage	PCF3
Scale	1:2500
Jacobs No.	B36601D1
Client no.	HE551497

Drawing number	HE551497 - JAC - HML - S3	Originator	JAC	Volume	-DR- C -0002
Location		Type		Role	
Number					

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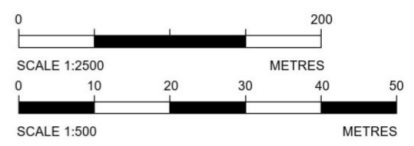


PLAN VIEW
MAINLINE - CH.33700 TO CH.35200
(SCALE 1:2500)

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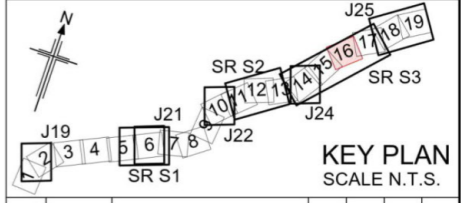
- Notes
1. This drawing shall only be used for the design element stated in the drawing title.
 2. All dimensions are in metres unless noted otherwise.
 3. The base mapping is based on Ordnance Survey (O/S) Data.
 4. Only written dimension shall be used.
 5. For Sheet Layout Plan refer to:
HE551497-JAC-HGN-SCHW-DR- C-0028 for Mainline profiles.
HE551497-JAC-HGN-SCHW-DR- C-0029 for Junction profiles.
HE551497-JAC-HGN-SCHW-DR- C-0030 for Sideroad profiles.

- Key
- PLAN
- Chainage
 - Curve alignment
 - Straight alignment
 - Transition alignment
- PROFILE
- Existing ground
 - Proposed ground (constant gradient)
 - Proposed ground (vertical curve)



CHAINAGE	33700.00	33750.00	33800.00	33850.00	33900.00	33950.00	34000.00	34050.00	34100.00	34150.00	34200.00	34250.00	34300.00	34350.00	34400.00	34450.00	34500.00	34550.00	34600.00	34650.00	34700.00	34750.00	34800.00	34850.00	34900.00	34950.00	35000.00	35050.00	35100.00	35150.00	35200.00				
PROPOSED LEVELS	35.095	35.261	35.428	35.594	35.761	35.927	36.094	36.260	36.427	36.593	36.760	36.926	37.093	37.259	37.426	37.593	37.759	37.926	38.092	38.259	38.425	38.592	38.758	38.925	39.091	39.258	39.424	39.591	39.757	39.924	40.057				
GRADIENT	0.333%	0.333%	0.333%	0.333%	0.333%	0.333%	0.333%	0.333%	0.333%	0.333%	0.333%	0.333%	0.333%	0.333%	0.333%	0.333%	0.333%	0.333%	0.333%	0.333%	0.333%	0.333%	0.333%	0.333%	0.333%	0.333%	0.333%	0.333%	0.333%	0.147%					
EXISTING LEVELS	32.522	33.864	35.224	36.046	36.721	37.395	38.215	38.941	39.432	39.741	40.305	40.846	41.200	41.352	41.829	41.743	41.718	41.401	40.930	40.627	40.311	40.377	40.450	40.593	40.576	40.376	40.688	39.461	38.802	37.871	36.866				
LEVEL DIFFERENCE	2.573	1.397	0.204	-0.452	-0.960	-1.467	-2.121	-2.681	-3.006	-3.147	-3.545	-3.920	-4.107	-4.092	-4.403	-4.150	-3.959	-3.476	-2.838	-2.369	-1.885	-1.785	-1.692	-1.668	-1.485	-1.119	-1.264	0.130	0.955	1.952	3.191				
HORIZONTAL	L=2152.227m																																		
VERTICAL	G=0.333%																	L=3147.153																	
SUPERELEVATION	0.000%																																		

LONGITUDINAL SECTION
MAINLINE - CH.33700 TO CH.35200
(SCALE H=1:2500, V=1:500)



KEY PLAN
SCALE N.T.S.

P01	26/04/21	DESIGN FIX 2	SH	CA	RM	RC
P02	20/05/21	FOR STATUTORY CONSULTATION	RK	CA	ST	RM
Rev	Rev. Date	Purpose of revision	Drawn	Checked	Rev'd	Apprv'd

Contractor: **COSTAIN** Designer: **Jacobs**
2nd Floor Cottons Centre, Cottons Lane
London SE1 2QG. Tel: +44 (0)203 9802000
www.jacobs.com

Client: **highways england**

Project: REGIONAL DELIVERY PARTNERSHIP
A12 CHELMSFORD TO A120 WIDENING SCHEME

Drawing title: **PLAN AND PROFILE
MAINLINE
CH. 33700 TO 35200
SHEET 16 OF 19**

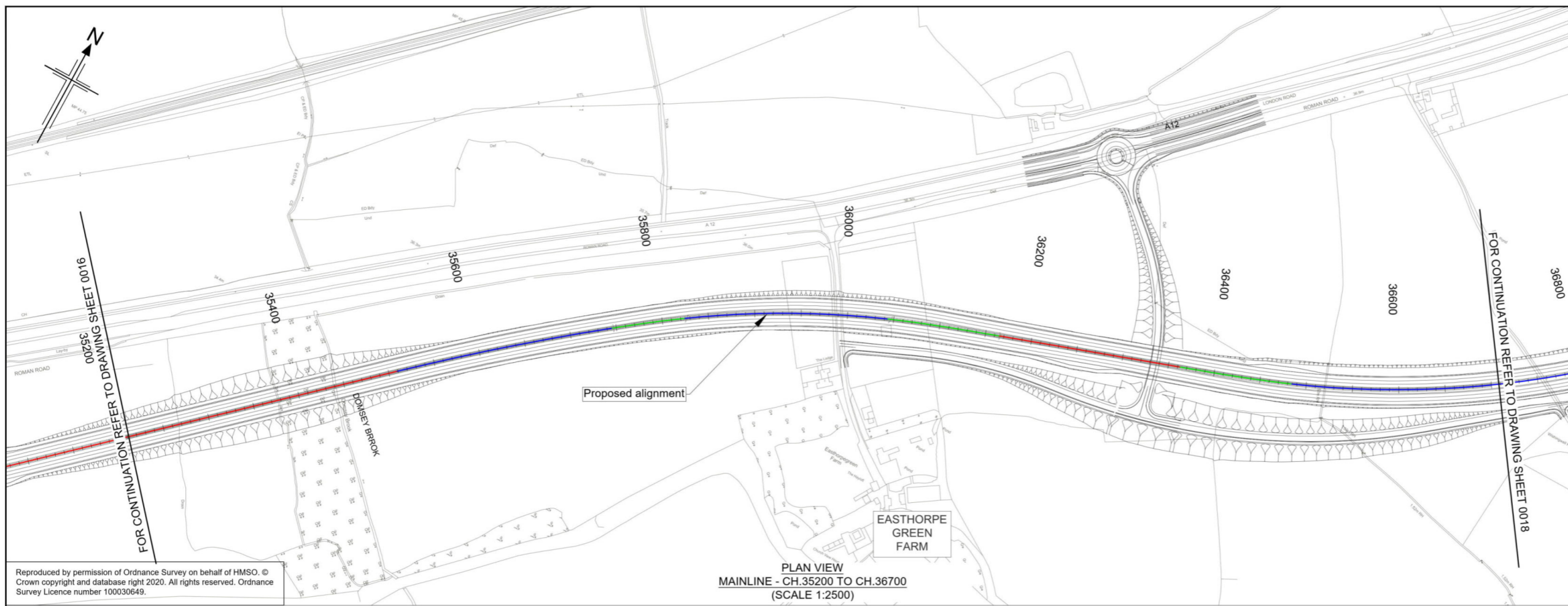
Drawing status: **S2 - SUITABLE FOR INFORMATION**

State Code	Preliminary
Project Stage	PCF3
Scale	1:2500
Jacobs No.	B36601D1
Client no.	HE551497

Drawing number	HE551497 - JAC - HML - S3	Originator	JAC	Volume	-DR- C -0003
Location		Type		Role	
Number					

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C:\pwworking\jacobs_uk_highways_sas\kharer\01554545\HE551497-JAC-HML-S3-DR-C-0003.dwg - 20/05/2021 17:53:25 - A1Frame - KhareR



- Notes
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HE551497-JAC-HGN-SCHW-DR-C-0028 for Mainline profiles.
HE551497-JAC-HGN-SCHW-DR-C-0029 for Junction profiles.
HE551497-JAC-HGN-SCHW-DR-C-0030 for Sideroad profiles.

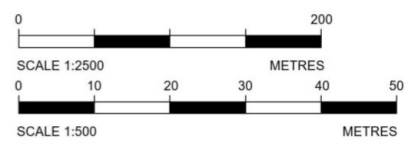
Key

PLAN

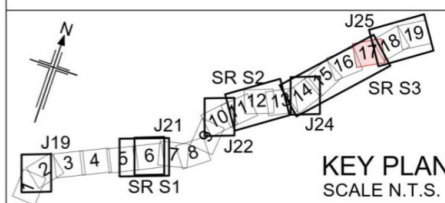
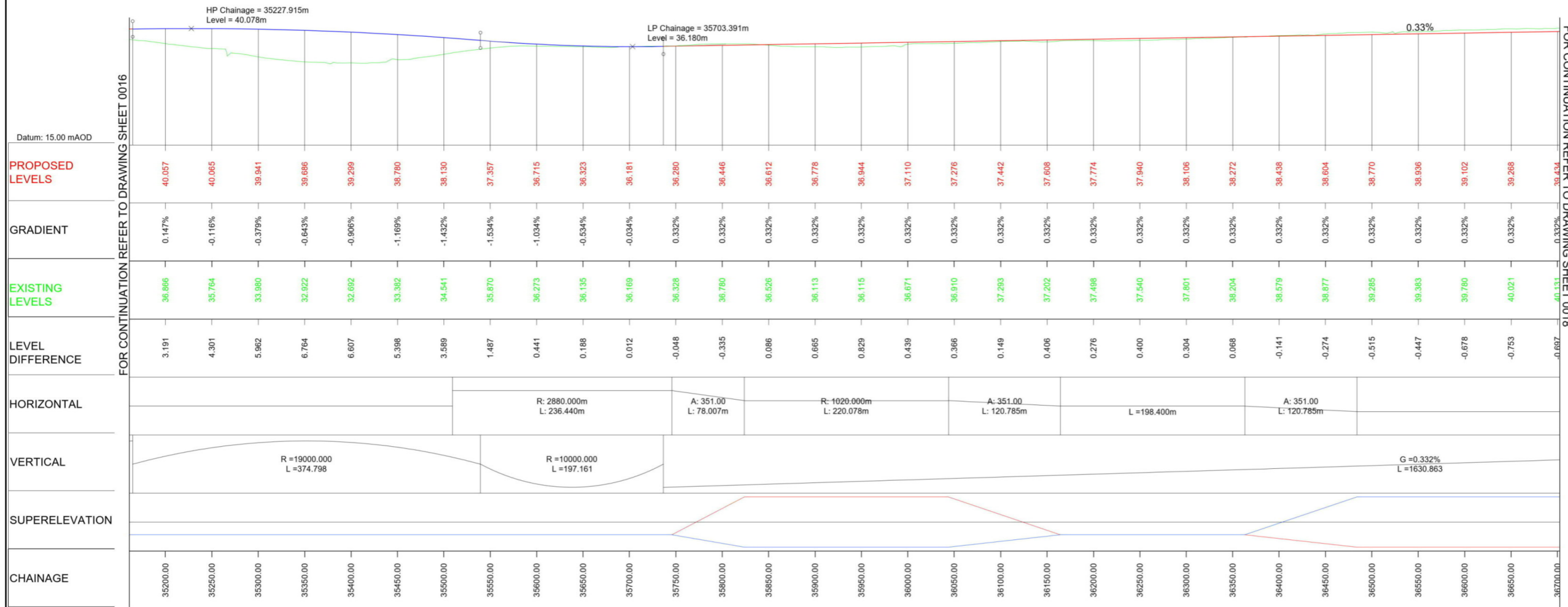
- Chainage
- Curve alignment
- Straight alignment
- Transition alignment

PROFILE

- Existing ground
- Proposed ground (constant gradient)
- Proposed ground (vertical curve)



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P01	26/04/21	DESIGN FIX 2	SH	CA	RM	RC
P02	20/05/21	FOR STATUTORY CONSULTATION	RK	CA	ST	RM
Rev	Rev. Date	Purpose of revision	Drawn	Checked	Rev'd	Apprv'd

Contractor: **COSTAIN** Designer: **Jacobs**
2nd Floor Cottons Centre, Cottons Lane
London SE1 2QG. Tel: +44 (0)203 9802000
www.jacobs.com

Client: **highways england**

Project: REGIONAL DELIVERY PARTNERSHIP
A12 CHELMSFORD TO A120 WIDENING SCHEME

Drawing title: **PLAN AND PROFILE
MAINLINE
CH. 35200 TO 36700
SHEET 17 OF 19**

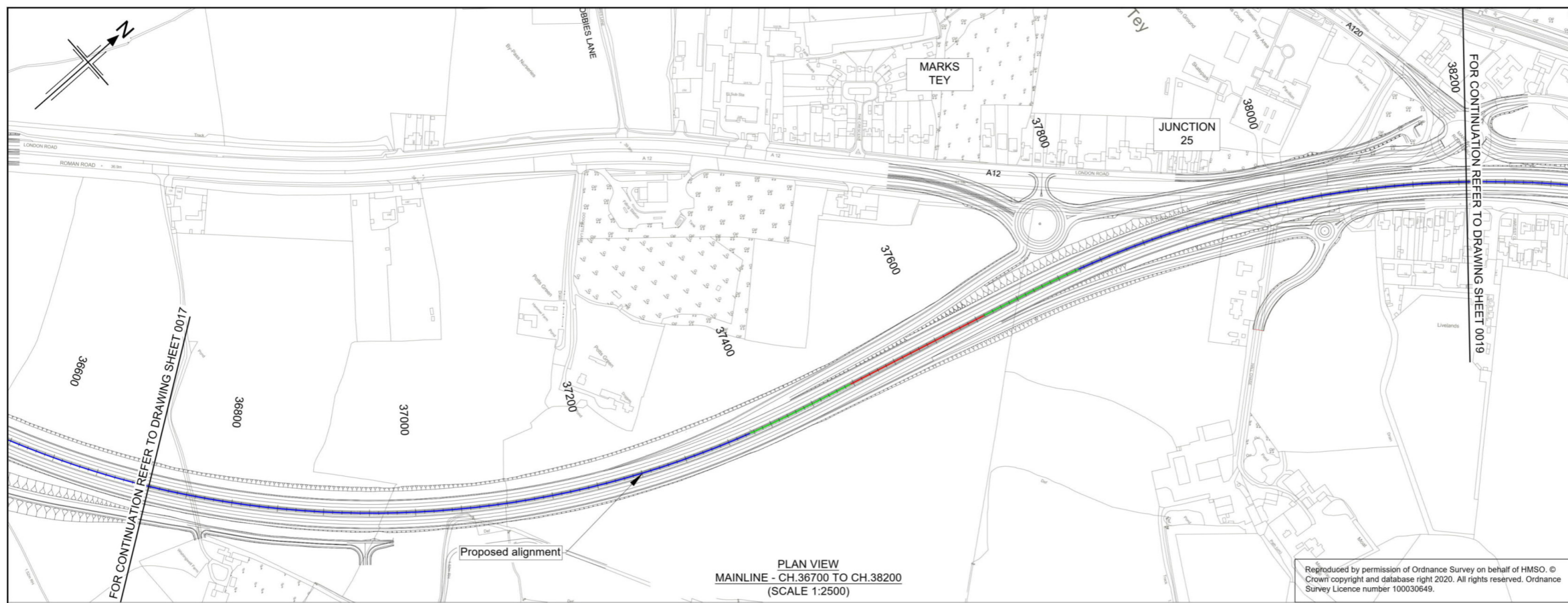
Drawing status: **S2 - SUITABLE FOR INFORMATION**

State Code	Preliminary
Project Stage	PCF3
Scale	1:2500
Jacobs No.	B36601D1
Client no.	HE551497

Drawing number	HE551497 - JAC - HML - S3	Originator	JAC	Volume	-DR- C -0004
Location		Type		Role	
Number					

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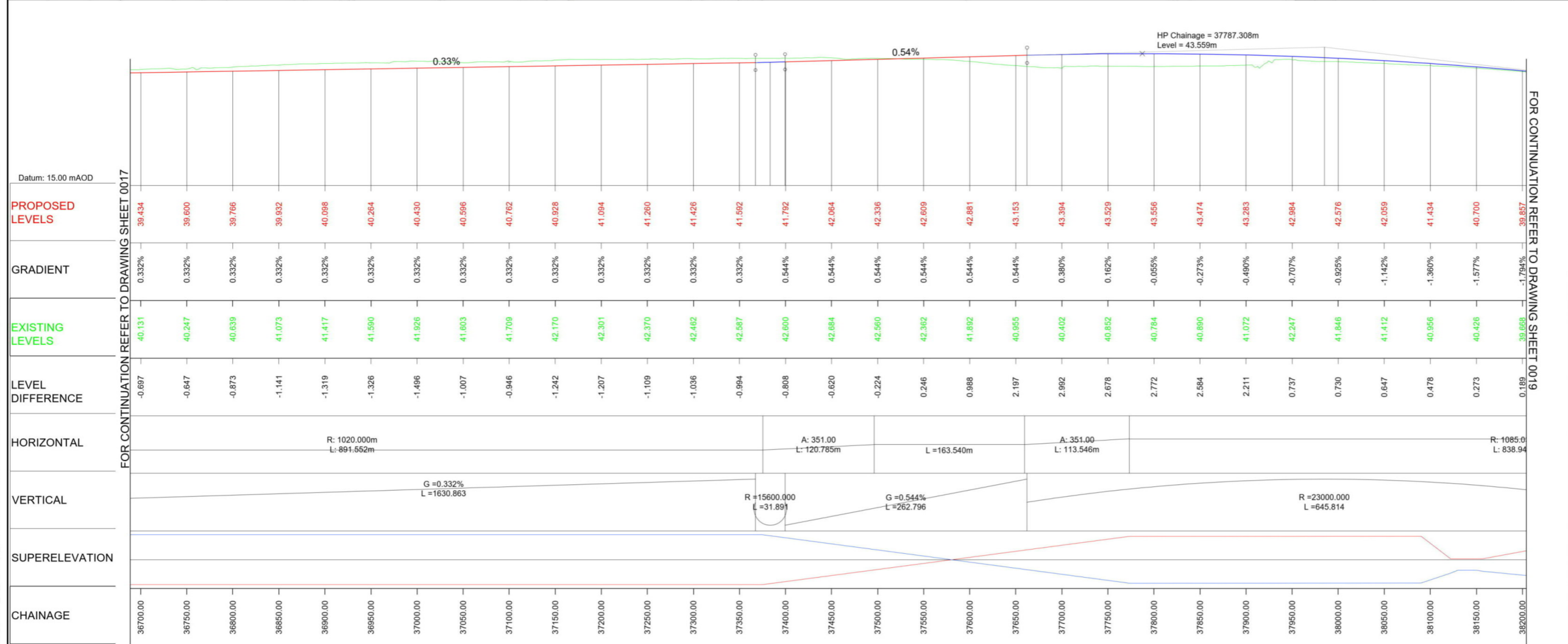
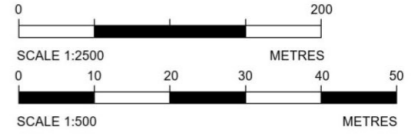


PLAN VIEW
MAINLINE - CH.36700 TO CH.38200
(SCALE 1:2500)

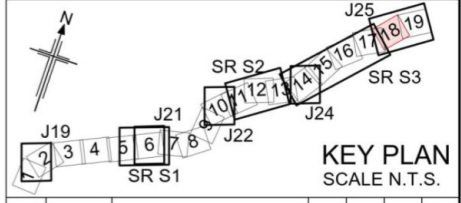
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HE551497-JAC-HGN-SCHW-DR-C-0028 for Mainline profiles.
HE551497-JAC-HGN-SCHW-DR-C-0029 for Junction profiles.
HE551497-JAC-HGN-SCHW-DR-C-0030 for Sideroad profiles.

- Key
- PLAN
- Chainage
 - Curve alignment
 - Straight alignment
 - Transition alignment
- PROFILE
- Existing ground
 - Proposed ground (constant gradient)
 - Proposed ground (vertical curve)



LONGITUDINAL SECTION
MAINLINE - CH.36700 TO CH.38200
(SCALE H=1:2500, V=1:500)



Rev	Rev. Date	Purpose of revision	Drawn	Checked	Rev'd	Apprv'd
P01	26/04/21	DESIGN FIX 2	SH	CA	RM	RC
P02	20/05/21	FOR STATUTORY CONSULTATION	RK	CA	ST	RM

Contractor: **COSTAIN** Designer: **Jacobs**
2nd Floor Cottons Centre, Cottons Lane
London SE1 2QG. Tel: +44 (0)203 9802000
www.jacobs.com

Client: **highways england**

Project: REGIONAL DELIVERY PARTNERSHIP
A12 CHELMSFORD TO A120 WIDENING SCHEME

Drawing title: **PLAN AND PROFILE
MAINLINE
CH. 36700 TO 38200
SHEET 18 OF 19**

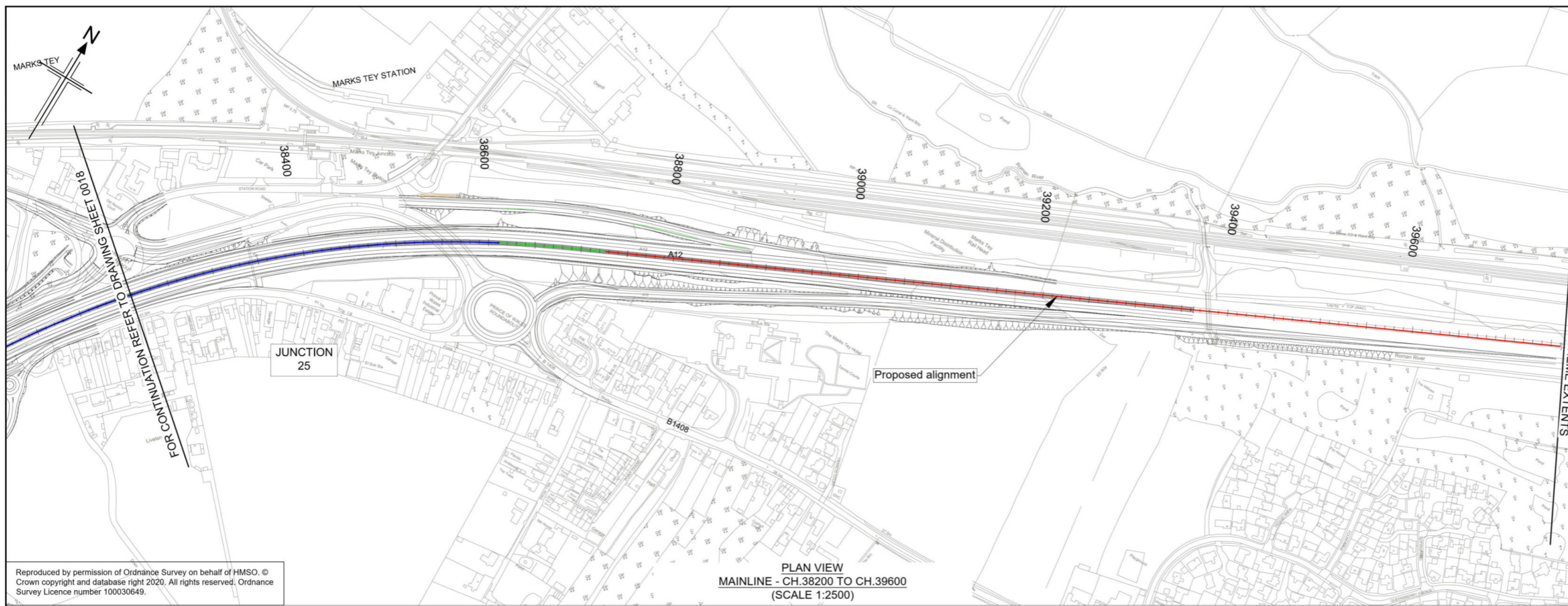
Drawing status: **S2 - SUITABLE FOR INFORMATION**

State Code	Preliminary
Project Stage	PCF3
Scale	1:2500
Jacobs No.	B36601D1
Client no.	HE551497

Originator	JAC	Volume	HML
Location	S3	Role	-DR-
Number	C-0005		

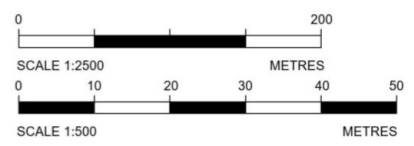
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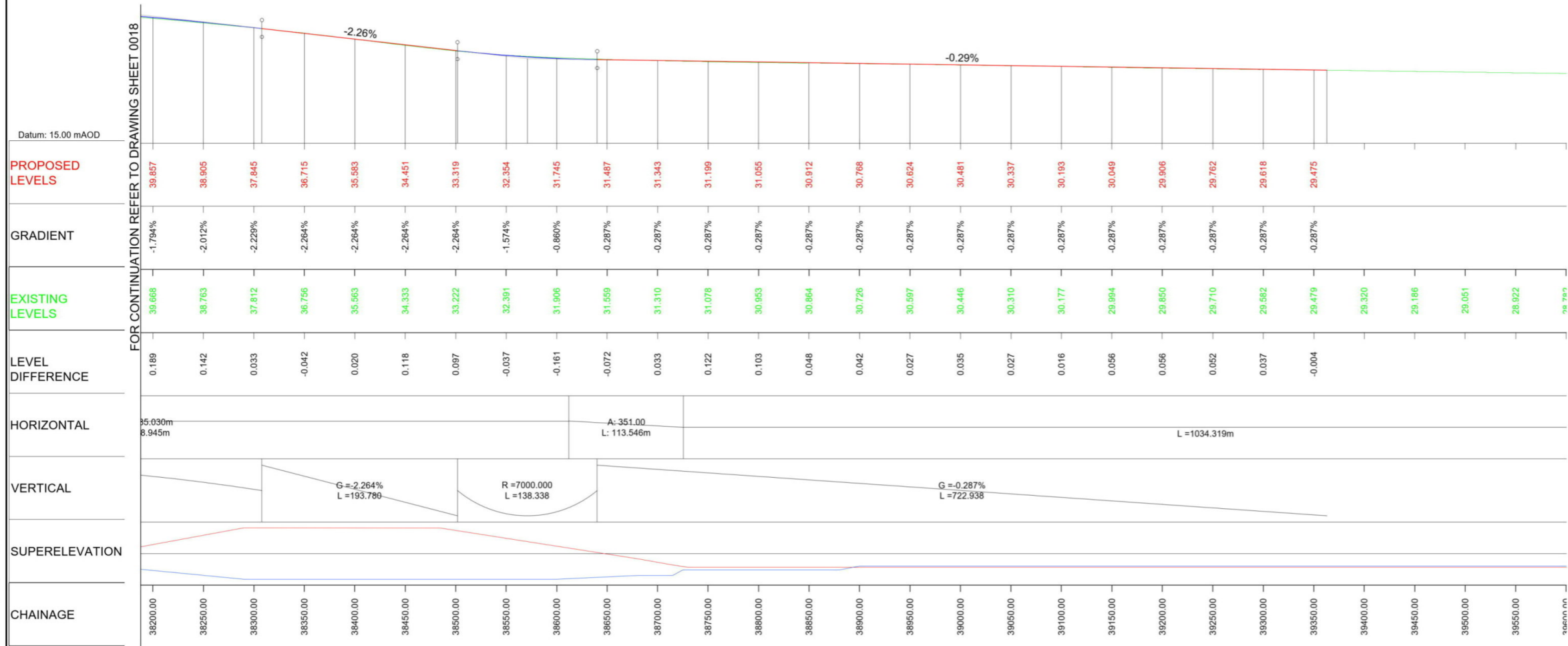


- Notes
- This drawing shall only be used for the design element stated in the drawing title.
 - All dimensions are in metres unless noted otherwise.
 - The base mapping is based on Ordnance Survey (O/S) Data.
 - Only written dimension shall be used.
 - For Sheet Layout Plan refer to:
 - HE551497-JAC-HGN-SCHW-DR- C-0028 for Mainline profiles.
 - HE551497-JAC-HGN-SCHW-DR- C-0029 for Junction profiles.
 - HE551497-JAC-HGN-SCHW-DR- C-0030 for Sideroad profiles.

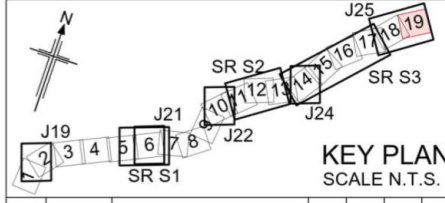
- Key
- PLAN
- Chainage
 - Curve alignment
 - Straight alignment
 - Transition alignment
- PROFILE
- Existing ground
 - Proposed ground (constant gradient)
 - Proposed ground (vertical curve)



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LONGITUDINAL SECTION
MAINLINE - CH.38200 TO CH.39600
(SCALE H=1:2500, V=1:500)



P01	26/04/21	DESIGN FIX 2	SH	CA	RM	RC
P02	20/05/21	FOR STATUTORY CONSULTATION	RK	CA	ST	RM
Rev	Rev. Date	Purpose of revision	Drawn	Checked	Rev'd	Apprv'd

Contractor: **COSTAIN** Designer: **Jacobs**
 2nd Floor Cottons Centre, Cottons Lane
 London SE1 2QG. Tel: +44 (0)203 9802000
 www.jacobs.com

Client: **highways england**

Project: REGIONAL DELIVERY PARTNERSHIP
A12 CHELMSFORD TO A120 WIDENING SCHEME

Drawing title: **PLAN AND PROFILE
MAINLINE
CH. 38200 TO 39600
SHEET 19 OF 19**

Drawing status: **S2 - SUITABLE FOR INFORMATION**

State Code	Preliminary
Project Stage	PCF3
Scale	1:2500
Jacobs No.	B36601D1
Client no.	HE551497
DO NOT SCALE	
Rev P02	

Drawing number	HE551497 - JAC - HML - S3	Originator	JAC	Volume	-DR- C -0006
Location		Type		Role	
Number					

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C:\pwworking\jacobs_uk_highways_ssa\khare\01555456\HE551497-JAC-HML-S3-DR-C-0006.dwg - 20/05/2021 16:56:34 - A1Frame - KhareR

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