

JUNCTION DETAILS : NEW ACCESS - EX-A38-K LH Side					
Curve	E	N	Level	Radius	
Centre O1 :	384955.150	217802.040		20.000	
Start TP1:	384969.590	217788.202	24.229		
End TP2:	384974.799	217805.771	23.560		

JUNCTION DETAILS : ROAD 2 - N-CHANCEL LH Side					
Curve	E	N	Level	Radius	
Centre O1 :	385001.914	217947.781		15.000	
Start TP1:	385013.523	217957.280	21.691		
End TP2:	384990.353	217957.338	22.310		

JUNCTION DETAILS : NEW ACCESS - EX-A38-K RH Side					
Curve	E	N	Level	Radius	
Centre O2 :	384963.878	217808.882		4.000	
Start TP3:	384966.758	217806.107	23.879		
End TP4:	384979.948	217808.137	23.505		

JUNCTION DETAILS : ROAD 2 - N-CHANCEL RH Side					
Curve	E	N	Level	Radius	
Centre O2 :	384984.873	217981.000		12.000	
Start TP3:	384995.450	217986.669	21.276		
End TP4:	384994.122	217973.354	21.639		

JUNCTION DETAILS : N-CHANCEL - EX-A38-K LH Side					
Curve	E	N	Level	Radius	
Centre O1 :	385047.710	217901.242		10.000	
Start TP1:	385055.372	217894.816	22.419		
End TP2:	385056.162	217906.586	21.969		

JUNCTION DETAILS : ROAD 3 - N-CHANCEL LH Side					
Curve	E	N	Level	Radius	
Centre O1 :	385055.391	217935.280		4.000	
Start TP1:	385052.851	217932.190	21.927		
End TP2:	385058.481	217932.740	21.862		

JUNCTION DETAILS : N-CHANCEL - EX-A38-K RH Side					
Curve	E	N	Level	Radius	
Centre O2 :	385072.897	217928.656		10.000	
Start TP3:	385078.448	217920.338	22.205		
End TP4:	385066.547	217920.931	22.100		

JUNCTION DETAILS : ROAD 3 - N-CHANCEL RH Side					
Curve	E	N	Level	Radius	
Centre O2 :	385068.852	217926.803		6.000	
Start TP3:	385065.042	217922.168	22.081		
End TP4:	385064.218	217930.613	21.834		

JUNCTION DETAILS : ROAD 1 - N-CHANCEL LH Side					
Curve	E	N	Level	Radius	
Centre O1 :	385032.701	217930.893		6.000	
Start TP1:	385037.015	217935.064	21.891		
End TP2:	385028.082	217934.723	22.001		

JUNCTION DETAILS : ROAD 4 - N-CHANCEL LH Side					
Curve	E	N	Level	Radius	
Centre O1 :	385039.587	217948.032		2.000	
Start TP1:	385038.149	217946.642	21.756		
End TP2:	385041.125	217946.753	21.781		

JUNCTION DETAILS : ROAD 1 - N-CHANCEL RH Side					
Curve	E	N	Level	Radius	
Centre O2 :	385018.809	217943.906		6.000	
Start TP3:	385022.791	217948.393	21.749		
End TP4:	385023.427	217940.075	21.954		

JUNCTION DETAILS : ROAD 4 - N-CHANCEL RH Side					
Curve	E	N	Level	Radius	
Centre O2 :	385051.938	217938.132		4.000	
Start TP3:	385049.062	217935.352	21.887		
End TP4:	385048.863	217940.689	21.787		



RESIDUAL RISK		REGISTER	
No.	Description of Hazard	Control Measures	Action By
	Standard Construction	Risk Assessment	Contractor
	Works within existing live road carriageway	Risk Assessment	Contractor
	Shallow Services	Risk Assessment	Contractor & Utility Provider

KEY:

- Site Development Planning Application Site Boundary (Approx 53.142 m² / 13.13 acres)
- Existing Highways Boundary
- Proposed Highway Boundary to be Adopted

- Notes:
- DO NOT SCALE DRAWING
- Dimensions provided are indicative only, and should be confirmed and read in conjunction with the Architect's construction drawings at such times as they are available, and/or from site measurement.
- All setting out to be in accordance with the Architect's drawings, any ambiguities to be raised prior to construction.
- NOTES:
- All works to be undertaken in accordance with Gloucestershire County Council Manual for Gloucestershire Streets 3rd Edition & Gloucestershire County Council Highways Standard Drawings.
 - All Statutory Undertakers, including cable television companies, must be contacted prior to commencing any works to ascertain the location and depth of their apparatus. In the event of any protection or diversionary works being necessary to their apparatus then any costs incurred will be the contractors responsibility both for arranging and any payment.
 - The Contractor shall provide, erect and maintain such traffic signs, lamps, barriers and traffic control signals, and such measures may be necessitated by the construction of the works in accordance with the recommendations contained in Chapter 8 of the Traffic Signs Manual.
 - The developer and contractor shall confirm they are working in accordance with NJUG Volume 1 Guidelines on the Positioning and Colour Coding of Underground Utilities Apparatus and Volume 2 Guidelines on the Positioning of Underground Utilities Apparatus for New Development Sites.
 - Root barrier to be installed at the back of the adopted footpath to prevent the roots from any proposed new trees undermining the footpath.
 - Retention of the existing kerbline will be subject to inspection and approval by the Local Authority Highways Inspector.
 - Re-use of the existing kerb race will be subject to inspection and approval by the Local Authority Highways Inspector. Reconstruction of the existing channel line to have 300mm overlap of each bituminous layer that is disturbed.
 - 150mm x 50mm back edging kerbs will be laid upturned and flush at footway crossovers.
 - Tactile paving at uncontrolled crossing points to be 400x400mm buff colour blister paving in accordance with 'DETR' guidance on the use of paving surfaces
 - All subgrade structures and unconsolidated material within the construction width of the highway, are to be removed.
 - CBR values and calculations may be required to determine sub-base thickness.
 - Boundary walls will not be adopted.
 - Hinged gully grate and frame to BS EN 124, Grade D400, non-roofing with captive left hand end hinge. Minimum wetness area 900mm squared. Frame depth 100mm. Black coated ductile iron.
 - Any existing gullies that are damaged during construction will be replaced with new ones, as agreed with a representative of the Local Authority Highways department.
 - Hand laying of bituminous materials is not permitted on adoptable carriageway.
 - Tarmac road construction to comply with BS EN 13109
 - The provision of a CCTV survey of any highway drainage, at the developers expense, is required prior to laying the wearing course.
 - Where two or more water services boundary boxes are situated together multi-meter boundary as specified by the Sewerage Undertaker are to be installed.
 - A Covenant will be provided to the benefit of the Local Authority ensuring that no planting or structure greater than 800mm in height to be permanently situated within the visibility splay.

- LIGHTING
- A. Lighting columns and brackets, CCTV masts and cantilever masts shall be supplied and installed in compliance with the relevant requirements of BS EN 40-1, BS EN 40-3-1, BS EN 40-3-2, BS EN 40-4, BS EN 40-5, BS EN 40-6 and BS 5698-2, BS 5645-5 and BS 5649-7 together with the amendments and additions stated in Clauses 1309, 1310 and 1311 and all the other requirements of this Series as appropriate. Electrical equipment for road lighting shall comply in general with the Adopting Local Authority equipment and installation specifications. In the event of conflict the adopting Local Authority specification will take precedence.
- B. The lighting columns are to be finished in BS 4800 18-B-25 (Dark Grey) (or the equivalent RAL colour with) a yellow or white band, 0.14-0.16m wide, 1.5-1.7m from ground level.
- C. On completion of street lighting installations, as a requirement of BS 7671 and IEE Wiring Regulations 17th Edition, a completion certificate in the form set out in Appendix 6 of the British Standards shall be provided to the LA. Alternatively a Certificate may be adopted from BS 7671 for use in street lighting installation given the ILE Code of Practice for Electrical Safety in Public Lighting Operations.
- SIGNING & SAFETY
- D. The Contractor shall provide, erect and maintain such traffic signs, lamps, barriers and traffic control signals, and such measures may be necessitated by the construction of the works in accordance with the recommendations contained in Chapter 8 of the Traffic Signs Manual.
- SERVICES
- E. All Statutory Undertakers, including cable television companies, must be contacted prior to commencing any works to ascertain the location and depth of their apparatus. In the event of any protection or diversionary works being necessary to their apparatus then any costs incurred will be the contractors responsibility both for arranging and any payment.

- CONCRETE
- Concrete to be C28/35 to B.S. 8500-2. Maximum aggregate size 20mm. Minimum cement content of 280kg/m³. Maximum water/cement ratio of 0.6.
 - All materials must be approved by the Engineer prior to use. Grading certificates are required for Dtp type 1 sub-base material.
 - Cement to be OPC to BS 12.
 - Foundation concrete to be cast against natural vertical earth faces. Any over excavation to be filled to the appropriate levels indicated, monolithically, with the appropriate grade concrete specified.
 - All organic material / topsoil to be removed from the plan footprints.
 - The engineer shall be given 24 hours notice for checking formations, reinforcement granular fill etc.
 - All excavations for concrete foundations shall be excavated, checked for safe bearing capacity (see above), and blinded with wet 50mm concrete in one working day.
 - Any over dig to reach a suitable formation level and removal of 'soft spots' encountered during excavation works is to be made up in compacted type 1 material or Gen 3 concrete. All formations to be approved by the LA Inspector.
 - Foundations are to be positioned centrally about columns/walls UNO.

Road Marking Notes

- Reference numbers refer to diagram numbers in The Traffic Signs Manual
- Road markings shall be white thermoplastic spread.
- Road markings are to be laid according to the SHW, minimum skid resistance class 55 to BS EN 1436.

All road markings and traffic signs shall comply with the traffic signs regulations and general directions and are to be in accordance with BS-262 1-3

FOR APPROVAL

PS SH Base layout and boundary updates 13.01.23
 P4 SH Levels adjusted to tie-in with boundary levels along Chancel Close 24.11.22
 P3 SH Highway boundaries updated 04.10.22
 P2 SH Base layout updated and client comments incorporated 09.08.22
 P1 SH Preliminary Issue 29.04.22

Rev By Details Date
 (P=Preliminary, T=Tender, C=Construction, R=Record)

Client:

CANMOOR

Project:

Access Park, Gloucester

Drawing Title:

Section 278 Works
 Setting Out - 2 of 2

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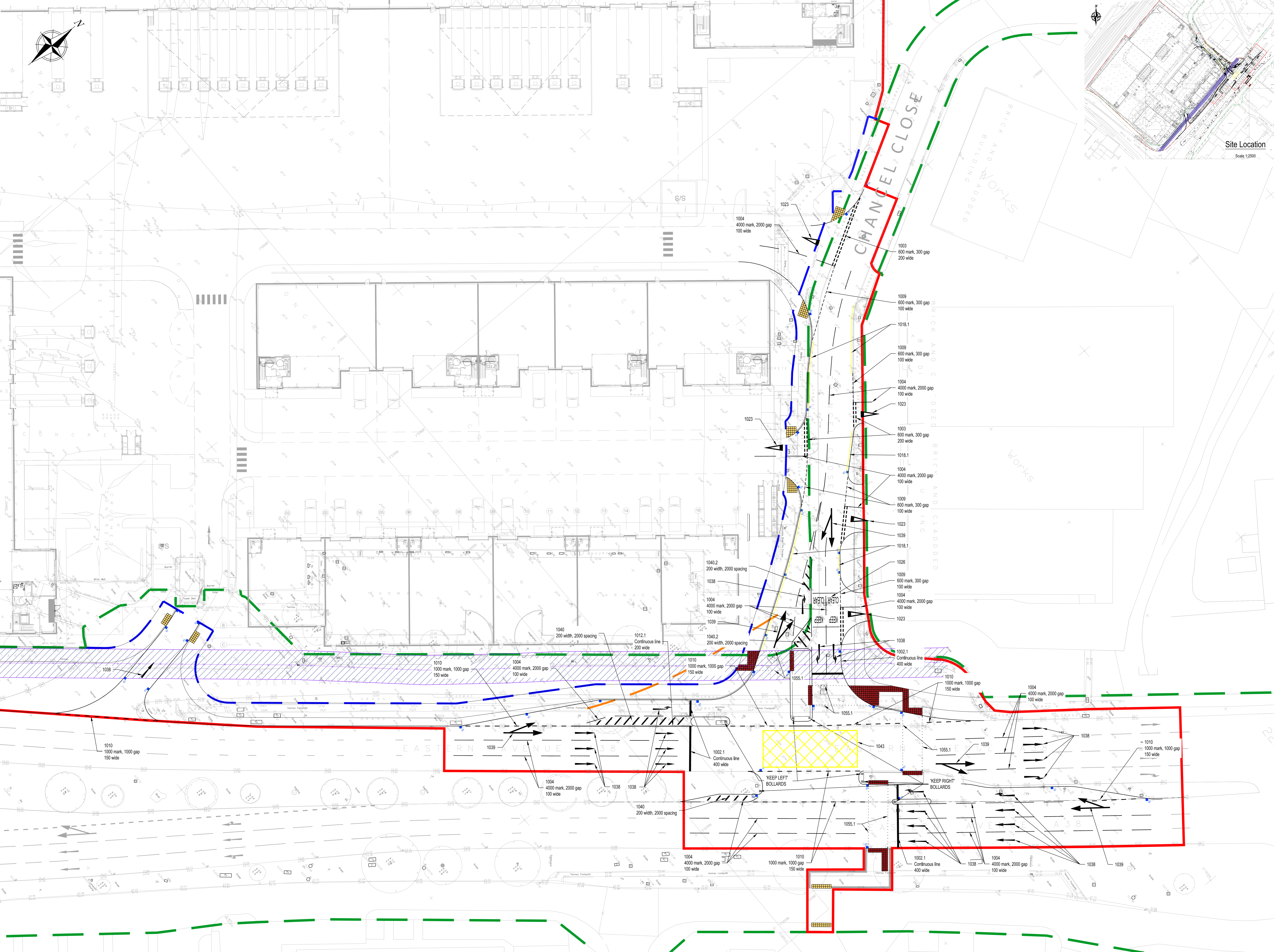
Drawing No.
 17-7295-0106

Issue Rev.
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ALIGNMENT EX-A38-K										
LOCATION	CHAINAGE	EASTING	NORTHING	LEVEL	RADIUS	BEARING	ANGLE	ARC LENGTH	TANL	
SPEX-1	0.000	384963.512	217771.424	24.570		43.77973				
TPEX-1a	45.313	384984.863	217804.140	23.921		43.77973				
IPEX-1		384984.868	217804.145		5.000		0.15228	0.013		0.007
TPEX-1b	45.327	384984.873	217804.150	23.921		43.93201				
TPEX-2a	50.847	384988.703	217808.125	23.835		43.93201				
IPEX-2		384988.712	217808.135		5.000		0.31220	0.027		0.014
TPEX-2b	50.874	384988.721	217808.145	23.835		43.61981				
TPEX-3a	56.661	384992.714	217812.334	23.744		43.61981				
IPEX-3		384992.721	217812.342		5.000		0.22879	0.020		0.010
TPEX-3b	56.681	384992.727	217812.349	23.744		43.39103				
TPEX-4a	61.083	384995.752	217815.548	23.675		43.39103				
IPEX-4		384995.784	217815.582		2.000		2.69977	0.094		0.047
TPEX-4b	61.177	384995.815	217815.618	23.673		40.69126				
TPEX-5a	70.445	385001.857	217822.654	23.528		40.69126				
IPEX-5		385001.865	217822.654		2.000		0.70879	0.025		0.012
TPEX-5b	70.469	385001.873	217822.663	23.528		39.98246				
TPEX-6a	139.821	385046.459	217875.784	22.687		39.94232				
IPEX-6		385046.464	217875.790		50.000		0.01896	0.017		0.008
TPEX-6b	139.838	385046.469	217875.796	22.687		39.92336				
TPEX-7a	149.293	385052.537	217883.048	22.618		39.92336				
IPEX-7		385052.541	217883.052		15.000		0.04529	0.012		0.006
TPEX-7b	149.305	385052.545	217883.057	22.618		39.96865				
TPEX-8a	154.371	385055.799	217886.939	22.586		39.96865				
IPEX-8		385056.442	217887.706		5145.544		0.02227	2.000		1.000
TPEX-8b	156.371	385057.084	217888.472	22.574		39.99092				
TPEX-9a	167.422	385064.186	217896.938	22.518		39.99092				
IPEX-9		385065.472	217898.471		2059.898		0.11126	4.000		2.000
TPEX-9b	171.422	385066.754	217900.005	22.502		39.87966				
TPEX-10a	192.319	385080.153	217916.042	22.319		39.87966				
IPEX-10		385080.164	217916.055		25.000		0.07762	0.034		0.017
TPEX-10b	192.353	385080.174	217916.068	22.318		39.95728				
TPEX-11a	202.019	385086.383	217923.478	22.253		39.95728				
IPEX-11		385086.431	217923.535		10.000		0.86215	0.150		0.075
TPEX-11b	202.170	385086.478	217923.594	22.251		39.09513				
TPEX-12a	204.221	385087.772	217925.185	22.240		39.09513				
IPEX-12		385087.813	217925.236		2.000		3.73030	0.130		0.065
TPEX-12b	204.351	385087.851	217925.289	22.239		35.36483				
TPEX-13a	220.014	385096.916	217938.061	22.199		35.36483				
IPEX-13		385097.022	217938.211		5.000		4.20027	0.367		0.183
TPEX-13b	220.380	385097.139	217938.352	22.196		39.56510				
TPEX-14a	228.818	385102.513	217944.857	22.131		39.56510				
IPEX-14		385102.538	217944.887		10.000		0.45193	0.079		0.039
TPEX-14b	228.897	385102.563	217944.918	22.130		39.11317				
TPEX-15a	233.379	385105.391	217948.396	22.095		39.11317				
IPEX-15		385105.408	217948.417		10.000		0.31278	0.055		0.027
TPEX-15b	233.434	385105.425	217948.438	22.095		38.80039				
TPEX-16a	238.470	385108.581	217952.363	22.057		38.80039				
IPEX-16		385109.834	217953.922		1689.502		0.13565	4.000		2.000
TPEX-16b	242.470	385111.084	217955.484	22.032		38.66474				
EPEX-1	247.757	385114.387	217959.612	22.000		38.66474				

ALIGNMENT NEW ACCE										
LOCATION	CHAINAGE	EASTING	NORTHING	LEVEL	RADIUS	BEARING	ANGLE	ARC LENGTH	TANL	



NOTES:
 Dimensions provided are indicative only and should be confirmed and read in conjunction with the Architect's construction drawings at such times as they are available, and/or from site measurement.
 All settings shall be in accordance with the Architect's drawings, any ambiguities to be raised prior to construction.

RESIDUAL RISK		REGISTER	
No.	Description of Hazard	Control Measures	Action By
	Standard Construction Works within existing live road carriageway	Risk Assessment	Contractor
	Shallow Services	Risk Assessment	Contractor & Utility Provider

- NOTES:**
- All works to be undertaken in accordance with Gloucestershire County Council Manual for Gloucestershire Streets and Edges & Gloucestershire County Council Highway Standard Drawings.
 - All Statutory Undertakers, including cable television companies, must be contacted prior to commencing any works to ascertain the location and depth of their apparatus. In the event of any protection or diversionary works being necessary to their apparatus then any costs incurred will be the contractors responsibility for arranging and any payment.
 - The Contractor shall provide, erect and maintain such traffic signs, lamps, barriers and traffic control signs, and such measures may be necessitated by the construction of the works in accordance with the recommendations contained in Chapter 8 of the Traffic Signs Manual.
 - The developer and contractor shall comply with any agreements with NADVA Volume 1 Guidelines on the Parking and Control Code of Underground Utilities Apparatus and Volume 2 Guidelines on the Protection of Underground Utilities Apparatus for New Development Sites.
 - Road barriers to be installed at the back of the adopted forgoth to prevent the roots from any proposed new trees undermining the forgoth.
 - Reinstatement of the existing kerb line will be subject to inspection and approval by the Local Authority Highways Inspector.
 - Reinstatement of the existing kerb line to have 300mm kerb height to each kerbstone layer that is situated.
 - 150mm concrete back edge kerbs with full formed and fluted kerbstone.
 - Traffic paving as unconfined paving to be 400x400mm half cobble pavers in accordance with DfTR guidance on the use of paving surfacing.
 - All sub-base structures and unconfined material within the construction width of the highway are to be removed.
 - C20 values and calculations may be required to determine sub-base thickness.
 - Boundary walls will not be adopted.
 - Mixed gully grates to be BS EN 124, Grade D400, non-slip with castles left hand and right. Minimum waterway area 900mm squared. Frame depth 100mm. Black coated oxide iron.
 - Any existing gullies that are damaged during construction will be replaced with new ones, as agreed with a representative of the Local Authority Highways Department.
 - Head lighting of all vehicles remains to be completed on adoptable carriageway.
 - Formwork and construction to comply with BS EN 13916.
 - The provision of a CCTV survey of any highway drainage, at the developers expense, is required prior to laying the wearing course.
 - Where any water services boundary lines are situated together (metered boundary as specified by the Sewerage Undertaker) are to be installed.
 - A Coverlet will be provided to the benefit of the Local Authority ensuring that no planting or structure greater than 600mm in height to be permanently situated within the visibility splay.

- LIGHTING**
- Lighting columns and brackets, CCTV masts and corridor masts shall be supplied and installed in accordance with the relevant requirements of BS EN 40-3, BS EN 40-2, BS EN 40-1, BS EN 40-5, BS EN 40-4 and BS 5682-2, BS 5682-3 and BS 5682-7 together with the amendments and addenda issued in Clauses 1009, 1039 and 1011 and all other requirements of this Specification as appropriate. Electrical equipment for road lighting shall comply in general with the Adopting Local Authority equipment and installation specifications, in the event of conflict the Adopting Local Authority specification will take precedence.
 - The lighting columns are to be finished to BS 4800 18-B-25 (Dark Grey) (or the equivalent RAL colour) with a yellow or white band 0.140.5m wide, 1.5-1.7m from ground level.
 - On completion of street lighting installations, as a requirement of BS 5717 and BS Wiring Regulations 17th Edition, a completion certificate in the form set out in Appendix 6 of the British Standard shall be provided to the L.A. Alternatively a Certificate may be obtained from BS 7571 for use in street lighting installations given the E.E Code of Practice for Electrical Safety in Public Lighting Operations.

- SPALLS & SAFETY**
- The Contractor shall provide, erect and maintain such traffic signs, lamps, barriers and traffic control signs, and such measures may be necessitated by the construction of the works in accordance with the recommendations contained in Chapter 8 of the Traffic Signs Manual.

- SERVICES**
- All Statutory Undertakers, including cable television companies, must be contacted prior to commencing any works to ascertain the location and depth of their apparatus. In the event of any protection or diversionary works being necessary to their apparatus then any costs incurred will be the contractors responsibility for arranging and any payment.

- CONCRETE**
- Concrete to be C20/25 to BS 5852. Maximum aggregate size 20mm. Minimum cement content of 280kg/m³. Maximum water/cement ratio of 0.45.
 - All materials must be approved by the Engineer prior to use. Casting certificates are required for C20 type 1 sub-base material.
 - Comply with BS EN 12620.
 - Foundation concrete to be cast against natural vertical earth faces. Any over excavation to be filled to the appropriate level in-situ with the appropriate grade concrete specified.
 - All surplus material to be removed from the plan footprint.
 - The engineer shall give 24 hours notice for checking foundations, reinforcement grade etc. etc.
 - All excavations for concrete foundations shall be excavated, checked for safe bearing capacity (see above), and labelled with red 20mm concrete in one working day.
 - Any over dig to reach a suitable formation level and removal of "soft spots" encountered during excavation works to be made up in compacted type 1 material or Gen 3 concrete. All formations to be approved by the L.A. Inspector.
 - Foundations are to be positioned centrally about columns/walls (M0).

- Road Marking Notes**
- Reference numbers refer to diagram numbers in The Traffic Signs Manual.
 - Road markings shall be white thermoplastic or cast.
 - Road markings are to be laid according to the S495 - minimum sight distance class 55 to BS EN 1406. All road markings and traffic signs shall comply with the Traffic Signs Regulations and general directions and are to be in accordance with BS 6822-1:3.



FOR APPROVAL

Rev	By	Description	Date
P4	SH	Base layout and boundary updates	13.01.23
P3	SH	Highway boundaries updated	04.10.22
P2	SH	Base layout updated and client comments incorporated	09.08.22
P1	SH	Preliminary Issue	23.04.22
Rev 01	SH	Details	Date

Client: **CANMOOR**

Project: **Access Park, Gloucester**

Drawing Title: **Section 278 Proposed Road Markings**

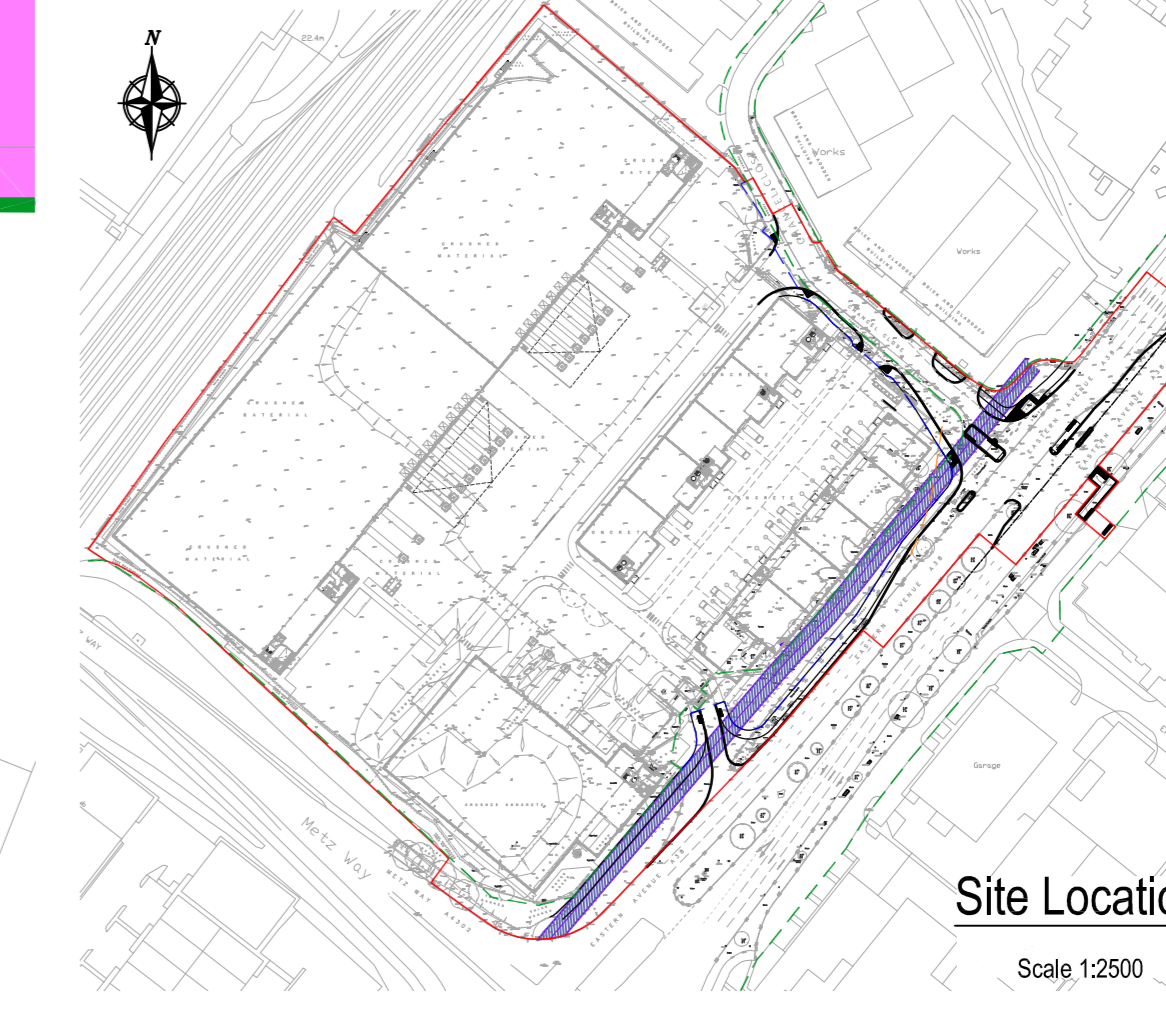
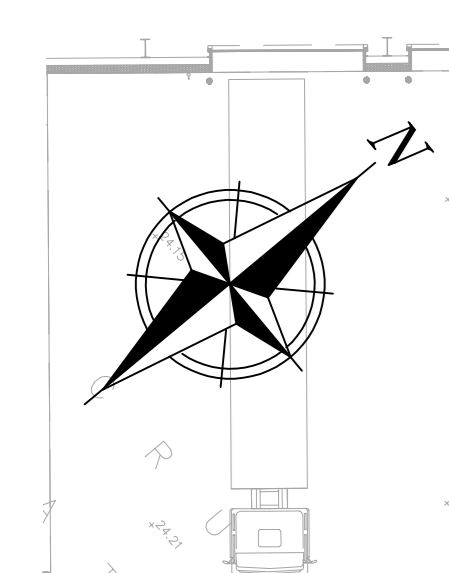
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Date	Drawn	Checked	Issue
Apr 22	SH	JB	P

Scale: 1:250 @ A0
 Drawing No: 17-7295-0107
 Issue Rev: 4

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Site Location
Scale 1:2500

NOTES:
 DIMENSIONS PROVIDED ARE INDICATIVE ONLY AND SHOULD BE CONFIRMED AND READ IN CONJUNCTION WITH THE ARCHITECT'S CONSTRUCTION DRAWINGS AT SUCH TIMES AS THEY ARE AVAILABLE, AND/or FROM SITE MEASUREMENT.
 ALL SETTING OUT TO BE IN ACCORDANCE WITH THE ARCHITECT'S DRAWINGS, ANY AMBIGUITIES TO BE RAISED PRIOR TO CONSTRUCTION.

RESIDUAL RISK		REGISTER	
No.	Description of Hazard	Control Measures	Action By
	Standard Construction Works within existing live road carriageway	Risk Assessment	Contractor
	Shallow Services	Risk Assessment	Contractor & Utility Provider

NOTES:

- All works to be undertaken in accordance with Gloucestershire County Council Manual for Gloucestershire Streets 3rd Edition & Gloucestershire County Council Highway Standard Drawings.
- All Statutory Undertakers, including cable television companies, must be contacted prior to commencing any works to ascertain the location and depth of their apparatus. In the event of any protection or diversionary works being necessary to their apparatus then any costs incurred will be the contractors responsibility both for arranging and any payment.
- The Contractor shall provide, erect and maintain such traffic signs, lamps, barriers and traffic control signals, and such measures may be necessitated by the construction of the works in accordance with the recommendations contained in Chapter 4 of the Traffic Signs Manual.
- The developer and contractor shall coordinate their works in accordance with NAD3 Victorian 1 Guidelines on the Protection and Colour Coding of Underground Utilities Apparatus and Victorian 2 Guidelines on the Protection of Underground Utilities Apparatus for New Development Sites.
- Road barriers to be installed at the back of the adopted footpath to prevent the roots from any proposed new trees undermining the footpath.
- Retention of the existing kerbs will be subject to inspection and approval by the Local Authority Highways Inspector.
- Reuse of the existing kerbs will be subject to inspection and approval by the Local Authority Highways Inspector. Reconstruction of the existing kerbs will be to have 300mm parallel to the kerb face.
- 150mm concrete back edging kerbs with half galvanized and fluted kerb nosing.
- Tarmac paving on unconfined opening points to be 400-400mm half cobble chaser paving in accordance with CEN TR guidance on the use of paving kerbs.
- All subsidence structures and unconfined material within the construction width of the highway, are to be removed.
- CSE values and calculations may be required to determine sub-base thickness.
- Boundary walls will not be adopted.
- Mixed gully grids and frames to BS EN 124, Grade D400, non-slip with cast-in hand and fringe. Minimum waterway area 900cm squared. Frame depth 100mm. Black coated oxide iron.
- An existing gully that is damaged during construction will be replaced with new ones, as agreed with a representative of the Local Authority Highways Department.
- Head height of culverts to be maintained to the adopted carriageway.
- Tarmac road construction to comply with BS EN 13108.
- The provision of a CCTV survey of any highway drainage, at the developers expense, is required prior to laying the wearing course.
- Where there are water services boundary lines are situated together multi-meter boundary is specified by the Sewerage Undertaker and to be installed.
- A 'Cover' will be provided to the benefit of the Local Authority ensuring that no planting or structure greater than 600mm in height to be permanently situated within the 'visibility splay'.

LIGHTING

- Lighting columns and brackets, CCTV masts and corridor masts shall be supplied and installed in accordance with the relevant requirements of BS EN 60598-1, BS EN 60598-2, BS EN 60598-3, BS EN 60598-4, BS EN 60598-5, BS EN 60598-6 and BS 5483-2, BS 5483-3 and BS 5483-7 together with the amendments and addenda issued in Classes 1008, 1139 and 1311 and all the other requirements of the Scheme as appropriate. Electrical equipment for road lighting shall comply in general with the Adopting Local Authority equipment and installation specifications, in the event of conflict the adopting local authority specification will take precedence.
- The lighting columns are to be installed to BS 4000 180-25 (Class C) or the equivalent PAK colour with a yellow or white band 0.462.5m wide, 1.513m from ground level.
- On completion of street lighting installations, as a requirement of BS 7171 and BS Wiring Regulations 17th Edition, a completion certificate in the form set out in Appendix 6 of the British Standard shall be provided to the L.A. Manufacturer's Certificate may be obtained from BS 7171 for use in street lighting installations given the E.E Code of Practice for Electrical Safety in Public Lighting Operations.

SPRINKLING & SAFETY

- The Contractor shall provide, erect and maintain such traffic signs, lamps, barriers and traffic control signals, and such measures may be necessitated by the construction of the works in accordance with the recommendations contained in Chapter 4 of the Traffic Signs Manual.

SERVICES

- All Statutory Undertakers, including cable television companies, must be contacted prior to commencing any works to ascertain the location and depth of their apparatus. In the event of any protection or diversionary works being necessary to their apparatus then any costs incurred will be the contractors responsibility both for arranging and any payment.

CONCRETE

- Concrete to be C28/35 to BS 8500-2. Maximum aggregate size 20mm. Minimum cement content of 280kg/m³. Maximum water/cement ratio of 0.45.
- All materials must be approved by the Engineer prior to use. Casting certificates are required for C28/35 concrete.
- Comply with BS EN 12620.
- Foundation concrete to be cast against natural vertical earth face. Any over excavation to be filled to the appropriate level and reinstated, non-structural, with the appropriate grade concrete specified.
- All aggregate material (topsoil) to be removed from the plan footprint.
- The aggregate shall be given 28 days curing for concrete foundations, sub-structure grade etc.
- All excavations for concrete foundations shall be excavated, checked for safe bearing capacity (see above), and labelled with red 300mm concrete in one working day.
- Any over dig to reach a suitable formation level and removal of 'soft spots' encountered during excavation works to be made up in compacted type 1 material or Gen 3 concrete. All materials to be approved by the L.A. Inspector.
- Foundations are to be positioned centrally about columns/walls (N/A).

Road Marking Notes

- Reference numbers refer to diagram numbers in The Traffic Signs Manual.
- Road markings shall be white thermoplastic or road.
- Road markings are to be laid according to the SMM - minimum skid resistance class 55 to BS EN 1408. All road markings and traffic signs shall comply with the Traffic Signs Regulations and general directions and are to be in accordance with BS 6826:1-3.

Key:

- Site Boundary
- Existing Highway Boundary
- Proposed Highway Boundary to be Adopted
- Proposed Carriageway
- Proposed Footpath
- Proposed Verge
- Existing Highway
- Existing Highways Land to be Stopped up
- Existing Surface Water Public Sewer
- Existing Foul Water Public Sewer
- Proposed Surface Water Sewer - to be Adopted by Severn Trent Water
- Proposed Foul Water Sewer - to be Adopted by Severn Trent Water
- Proposed Highway Gully - to be Adopted by GCC Highways

FOR APPROVAL

Rev	By	Date	Description
P4	SH	13.01.22	Base layout and boundary updates
P3	SH	04.10.22	Highway boundaries and hatching updated
P2	SH	09.08.22	Base layout updated and client comments incorporated
P1	SH	29.04.22	Preliminary Issue

Client: **CANMOOR**

Project: **Access Park, Gloucester**

Drawing Title: **Section 278 Land Dedication Plan**

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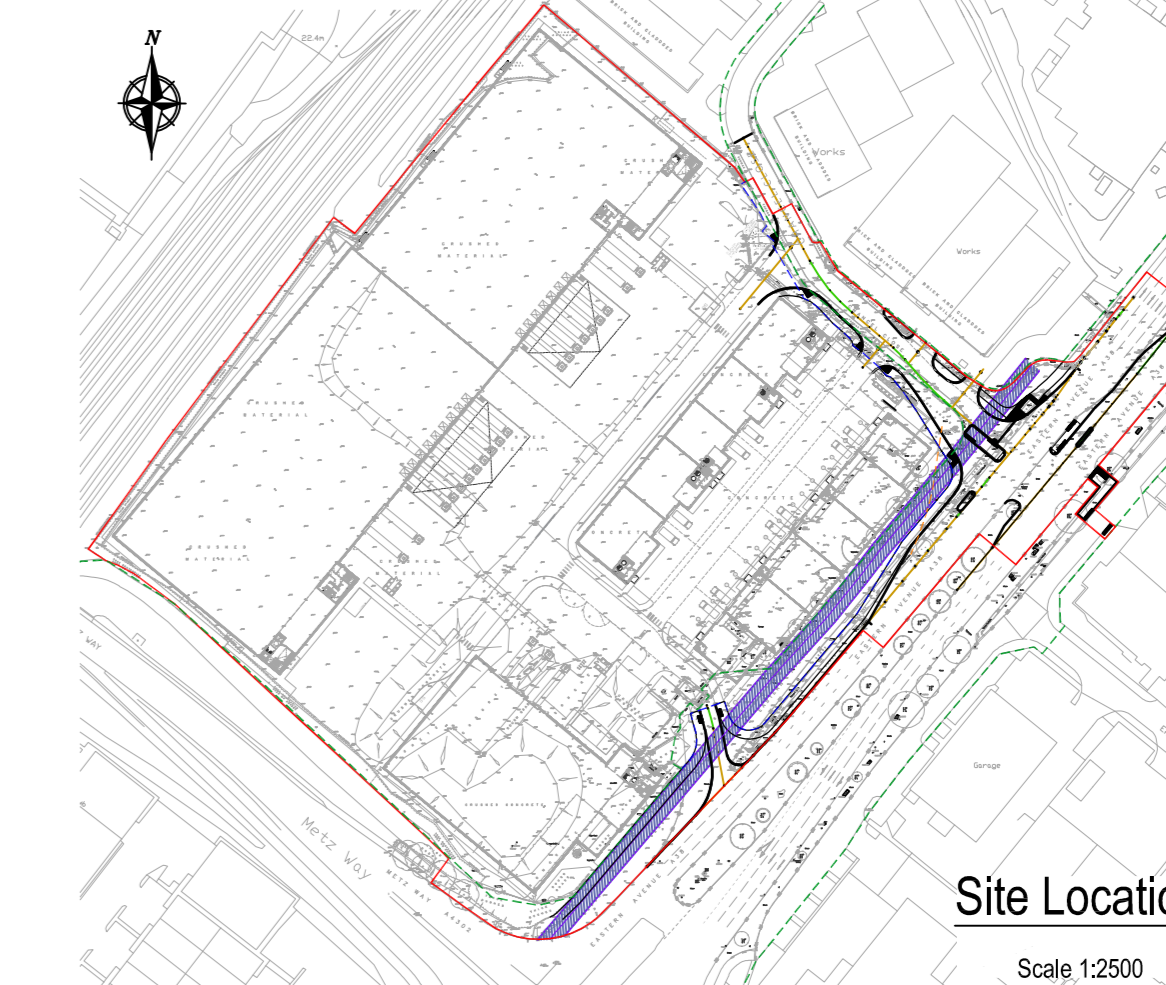
Date: Apr 22
 Scale: 1:250 @ A0
 Drawn: SH
 Chkd: JB

Drawing No: **17-7295-0109**

Issue Rev: **P 4**

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Land Dedication Layout
Scale 1:250



Site Location
Scale 1:2500

Notes:
Dimensions provided are indicative only and should be confirmed and read in conjunction with the Architect's construction drawings at such times as they are available, and/or from site measurement.
All setting out to be in accordance with the Architect's drawings, any ambiguities to be raised prior to construction.

RESIDUAL RISK		REGISTER	
No.	Description of Hazard	Control Measures	Action By
	Standard Construction Works within existing live road carriageway	Risk Assessment	Contractor
	Shallow Services	Risk Assessment	Contractor & Utility Provider

- NOTES:**
- All works to be undertaken in accordance with Gloucestershire County Council Manual for Gloucestershire Streets 2nd Edition & Gloucestershire County Council Highway Standard Drawings.
 - All Statutory Undertakers, including cable television companies, must be contacted prior to commencing any works to ascertain the location and depth of their apparatus. In the event of any protection or diversionary works being necessary to their apparatus then any costs incurred will be the contractors responsibility both for arranging and any payment.
 - The Contractor shall provide, erect and maintain such traffic signs, lamps, barriers and traffic control signals, and such measures may be necessitated by the construction of the works in accordance with the recommendations contained in Chapter 7 of the Traffic Signs Manual.
 - The developer and contractor shall coordinate their works in accordance with the recommendations contained in Chapter 7 of the Traffic Signs Manual.
 - The developer and contractor shall coordinate their works in accordance with the recommendations contained in Chapter 7 of the Traffic Signs Manual.
 - Roof barrier to be installed at the back of the adopted footpath to prevent the roots from any proposed trees undermining the footpath.
 - Retention of the existing kerbs will be subject to inspection and approval by the Local Authority Highway Inspector.
 - Reuse of the existing kerbs will be subject to inspection and approval by the Local Authority Highway Inspector. Reconstruction of the existing kerbs will be to have 200mm concrete to BS EN 124, 200mm concrete to BS EN 124, 40mm concrete to BS EN 124 and 40mm concrete to BS EN 124.
 - 200mm concrete back edge kerbs will be laid parallel and flush to kerbs on existing road.
 - Facile paving at uncontrolled crossing points to be 400x400mm half cobble checker paving in accordance with DfTR guidance on the use of paving kerbs.
 - All sub-base structures and uncontrolled material within the construction width of the highway, are to be removed.
 - CSE values and calculations may be required to determine sub-base thickness.
 - Boundary walls will not be replaced.
 - Mixed grit gravel and kerbs to BS EN 124, Grade D400, non-slip, non-rotting with capped hand and high. Minimum waterway area 900mm squared. Frame depth 100mm. Black coated outside rim.
 - Any existing gullies that are damaged during construction will be replaced with new ones, as agreed with a representative of the Local Authority Highway Department.
 - Hard top of drainage channels to be permitted on adoptable carriageway.
 - Tarmac road construction to comply with BS EN 13036.
 - The provision of a CCTV survey of any highway drainage, at the developers expense, is required prior to laying the wearing course.
 - Where in or near water courses boundary lines are situated together multi-meter boundary is specified by the Sewerage Undertaker and to be installed.
 - A Coverlet will be provided to the benefit of the Local Authority ensuring that no planting or structure greater than 600mm in height to be permanently situated within the visibility splay.

- LIGHTING**
- Lighting columns and brackets, CCTV mast and corridor mast shall be supplied and installed in accordance with the relevant requirements of BS EN 60523, BS EN 60524, BS EN 60525, BS EN 60526 and BS 5483-2, BS 5483-3 and BS 5483-7 together with the amendments and addenda issued in Change 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11 and 12 and all the other requirements of this Series as appropriate. Electrical equipment for road lighting shall comply in general with the Adopting Local Authority equipment and installation specifications, in the event of conflict the Adopting Local Authority specification will take precedence.
 - The lighting columns are to be finished to BS 4800 18-25 (Dark Grey) (or the equivalent RAL colour with a yellow or white band 0.140.5m wide, 1.5-1.7m from ground level).
 - On completion of street lighting installations, as a requirement of BS 5717 and BS 5718 Regulations 17th Edition, a completion certificate in the form set out in Appendix 6 of the British Standard shall be provided to the L.A. Alternatively a Certificate may be obtained from BS 7571 for use in street lighting installations given the E.E Code of Practice for Electrical Safety in Public Lighting Operations.
- SEWERAGE & SAFETY**
- The Contractor shall provide, erect and maintain such traffic signs, lamps, barriers and traffic control signals, and such measures may be necessitated by the construction of the works in accordance with the recommendations contained in Chapter 7 of the Traffic Signs Manual.

- CONCRETE**
- Concrete to be C28/35 to BS 8500-2. Maximum aggregate size 20mm. Minimum cement content of 280kg/m³. Maximum water/cement ratio of 0.45.
 - All materials must be approved by the Engineer prior to use. Approval certificates are required for C10-type 1 sub-base material.
 - Comply with CEN 12620, BS 12.
 - Foundation concrete to be cast against natural vertical earth face. Any over excavation to be filled to the appropriate level indicated, non-structurally, with the appropriate grade concrete specified.
 - All surplus material is to be removed from the plan location.
 - The Engineer shall be given 24 hours notice for checking foundation, reinforcement grade, etc.
 - All excavations for concrete foundations shall be excavated, checked for safe bearing capacity (see above), and labelled with 300mm concrete to one working day.
 - Any over dig to reach suitable formation level and removal of spoil to be completed during excavation works to be made up in compacted type 1 material or Gen 3 concrete. All materials to be approved by the L.A. Highway Inspector.
 - Foundations are to be positioned centrally about columns/walls (M0).

- Road Marking Notes**
- Refer to numbers refer to diagram numbers in The Traffic Signs Manual.
 - Road markings shall be with thermoplastic road.
 - Road markings are to be laid according to the S461 regulations and minimum down 55 to BS EN 1408.
 - All road markings and traffic signs shall comply with the Traffic Signs regulations and general directions and are to be in accordance with BS 6821:1-3.

FOR APPROVAL

PS SH	Base layout and boundary updates	13.01.23
PA SH	Long sections updated	24.11.22
PS SH	Highway boundaries updated	04.10.22
PS SH	Long Sections updated to suit updated base layout	09.08.22
PS SH	Preliminary Issue	20.04.22
Rev By	Details	Date
	(P=Preliminary, T=Tender, C=Construction, R=Revised)	

Client: **CANMOOR**

Project: **Access Park, Gloucester**

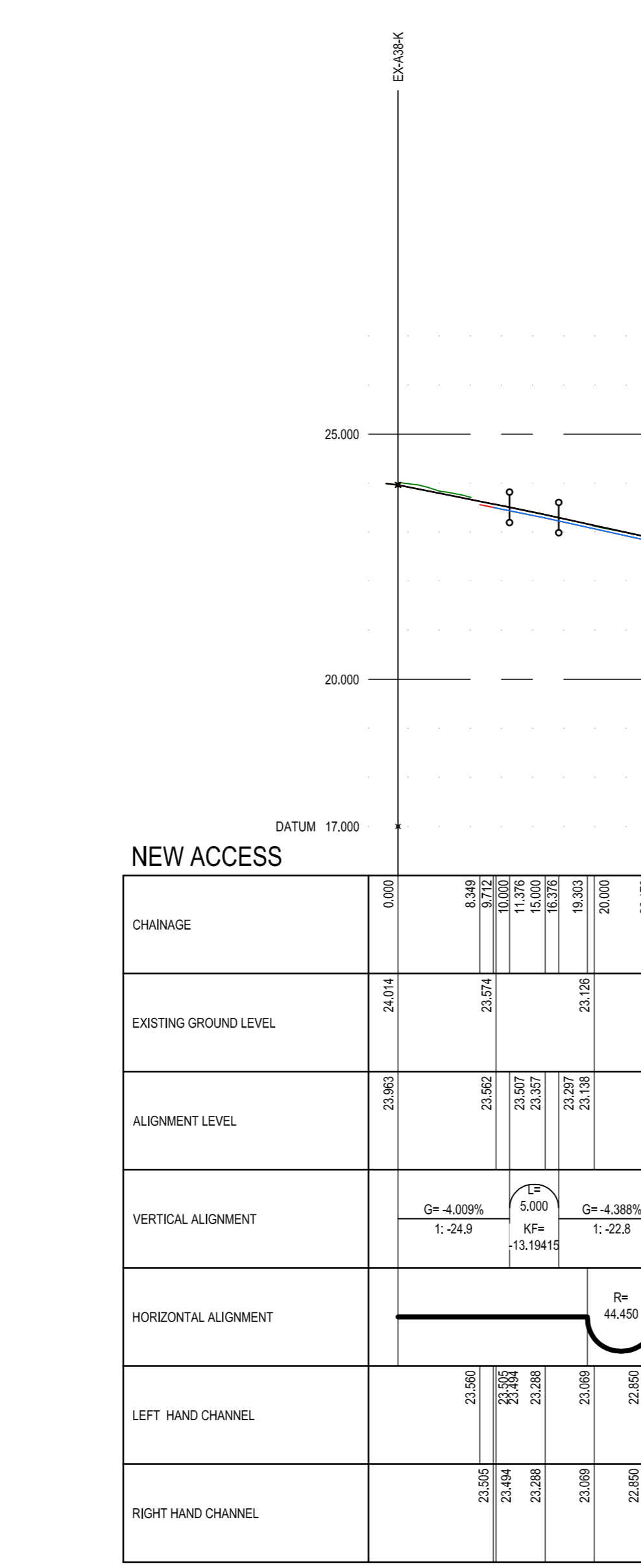
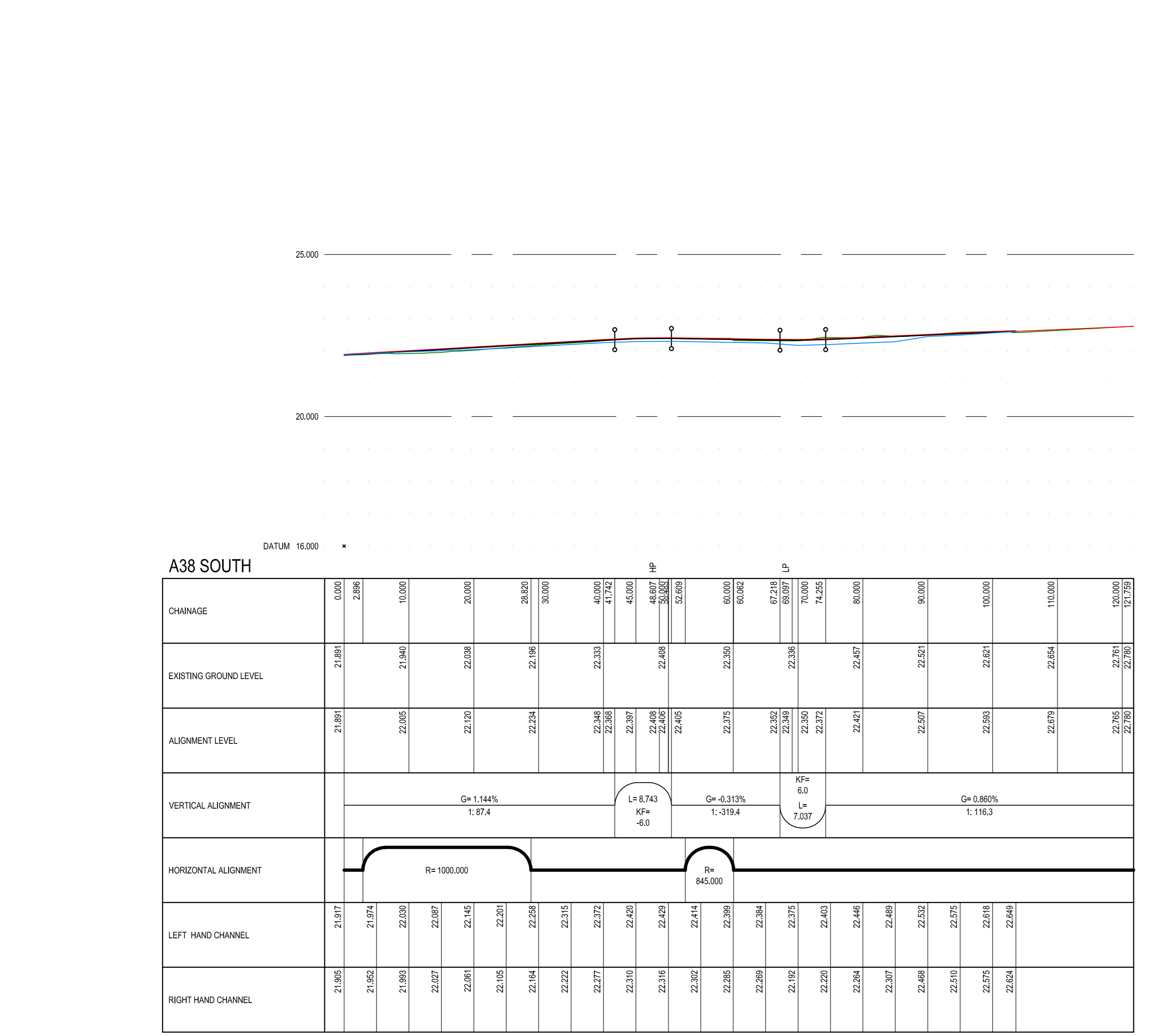
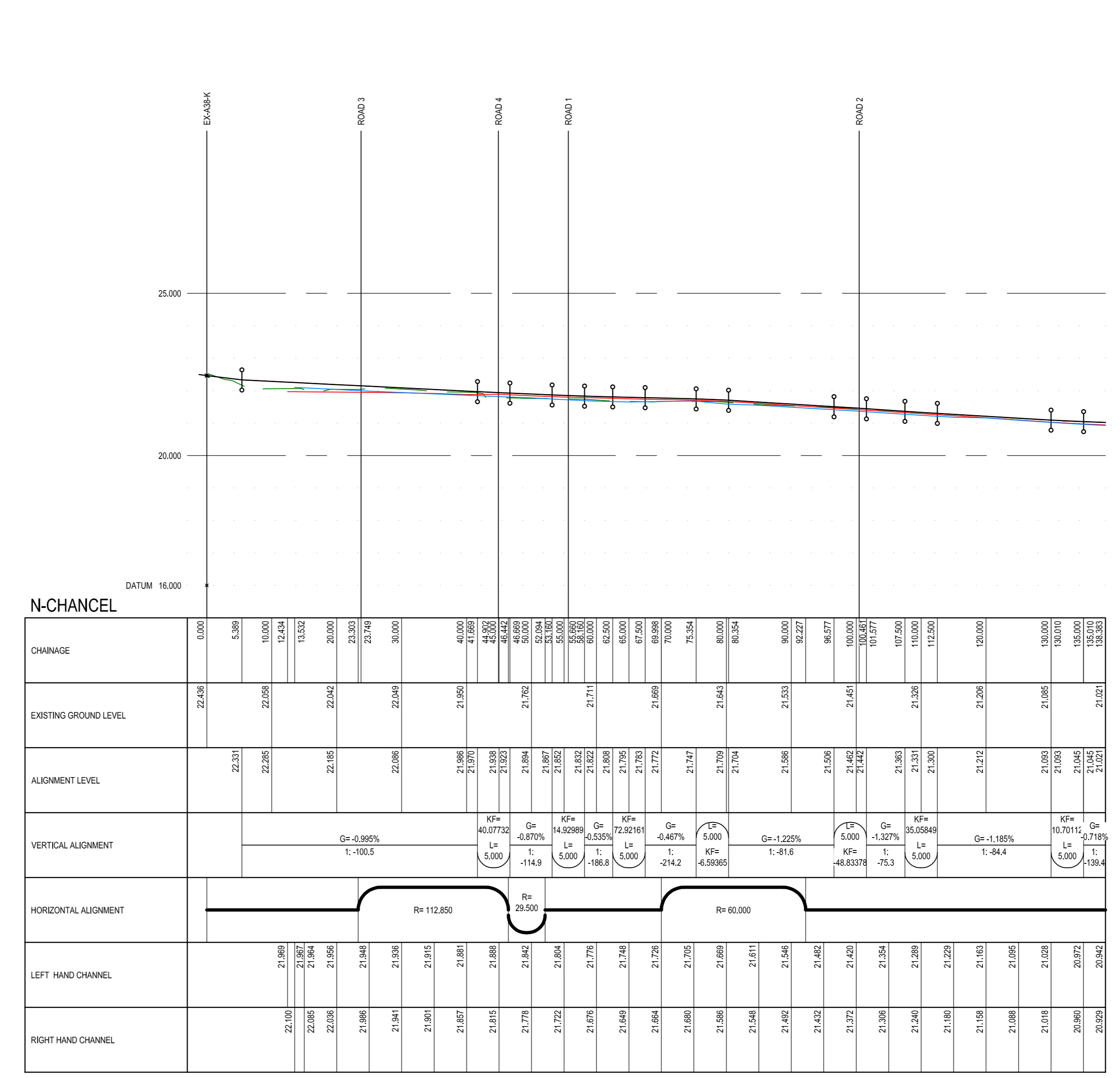
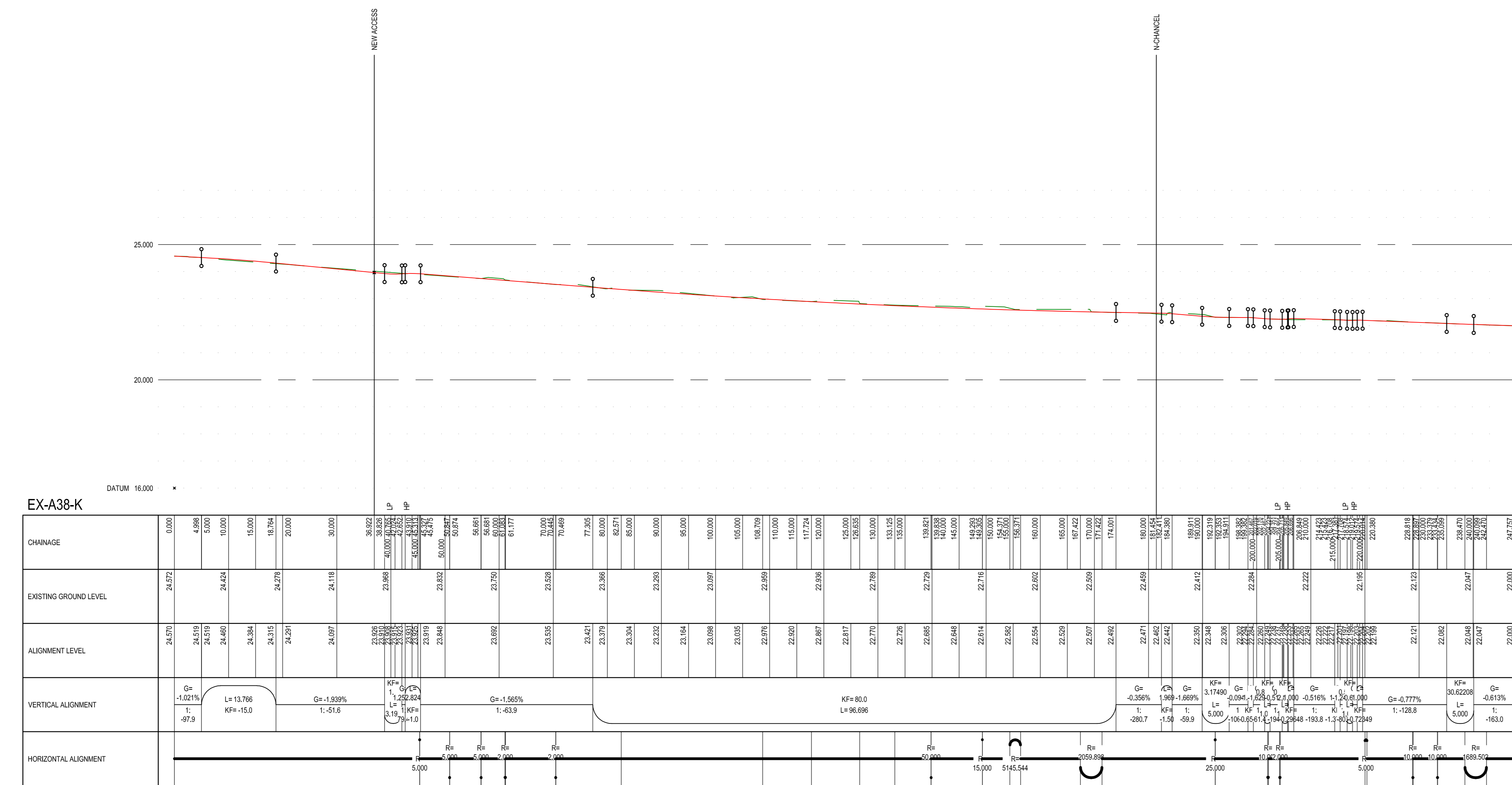
Drawing Title: **Section 278 Longitudinal Sections**

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Scale: As Shown @ A4
Drawn: SH
Chd: JB

Issue No: **17-7295-0110**
Issue Rev: **P 5**

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NOTES:
 Dimensions provided are indicative only and should be confirmed and read in conjunction with the Architect's construction drawings at such times as they are available, and/or from site measurement.
 All setting out to be in accordance with the Architect's drawings, any ambiguities to be raised prior to construction.

RESIDUAL RISK		REGISTER	
No.	Description of Hazard	Control Measures	Action By
	Standard Construction Works within existing live road carriageway	Risk Assessment	Contractor
	Shallow Services	Risk Assessment	Contractor & Utility Provider

- NOTES:**
- All works to be undertaken in accordance with Gloucestershire County Council Manual for Gloucestershire Streets 3rd Edition & Gloucestershire County Council Highway Standard Drawings.
 - All Statutory Undertakers, including cable installation companies, must be contacted prior to commencing any works to ascertain the location and depth of their apparatus. In the event of any protection or diversionary works being necessary to their apparatus then any costs incurred will be the contractors responsibility both for arranging and any payment.
 - The Contractor shall provide, erect and maintain such traffic signs, lamps, barriers and traffic control signals, and such measures may be necessitated by the construction of the works in accordance with the recommendations contained in Chapter 6 of the Traffic Signs Manual.
 - The developer and contractor shall confirm they are working in accordance with N333 Volume 1 Guidelines on the Protection and Covering of Underground Utilities Apparatus and Volume 2 Guidelines on the Protection of Underground Utilities Apparatus for New Development Sites.
 - Root barrier to be installed at the back of the adopted footpath to prevent the roots from any proposed new trees undermining the footpath.
 - Retention of the existing kerbside will be subject to inspection and approval by the Local Authority Highway Inspector.
 - Reuse of the existing kerbside will be subject to inspection and approval by the Local Authority Highway Inspector. Reconstruction of the existing kerbside to have 200mm concrete to BS EN 124, Grade D400, non-slip on each kerbside layer that is disturbed.
 - 150mm concrete back edge kerbside with 100mm granular fill and 100mm concrete.
 - Flexible paving as unconfined wearing course to be 400-450mm half cobble binder paving in accordance with DCTM guidance on the use of paving kerbside.
 - All sub-base structures and unconfined material within the construction width of the highway, are to be removed.
 - COR values and calculations may be required to determine sub-base thickness.
 - Boundary walls will not be replaced.
 - Height of gully pipe and frame to BS EN 124, Grade D400, non-slip with capless left hand and right. Minimum wetway area 900mm squared. Frame depth 100mm. Black coated outside rim.
 - An existing gully that is damaged during construction will be replaced with new ones, as agreed with a representative of the Local Authority Highway Department.
 - Hand layed of bituminous material is permitted on adoptable carriageway.
 - Tarmac road construction to comply with BS EN 13106.
 - The provision of a CCTV survey of any highway drainage, at the developers expense, is required prior to laying the wearing course.
 - When an open water service boundary is shown on the drawings, the boundary is to be marked by the Sewerage Undertaker and to be installed.
 - A Coverlet will be provided to the benefit of the Local Authority ensuring that no planting or structure greater than 600mm in height to be permanently situated within the 'visibility splay'.

- LIGHTING**
- Lighting columns and brackets, CCTV masts and corridor masts shall be supplied and installed in accordance with the relevant requirements of BS EN 605, BS EN 605-2, BS EN 605-3, BS EN 605-4, BS EN 605-5, BS EN 605-6 and BS 5682-2, BS 5682-3, BS 5682-4 and BS 5682-5 together with the amendments and addenda issued in Clauses 1109, 1110 and 1111 and all the other requirements of this Series as appropriate. Electrical equipment for road lighting shall comply in general with the Adopting Local Authority equipment and installation specifications, in the event of conflict the adopting local authority specification will take precedence.
 - The lighting columns are to be finished to BS 4800 18-B25 (Dark Grey) (or the equivalent RAL colour with a yellow or white band 0.140.5mm wide, 1.5 x 1.7m from ground level).
 - On completion of street lighting installation, as a requirement of BS 7171 and BS 7171-1, a Street Lighting Certificate shall be issued by the L.A. Alternatively a Certificate may be obtained from BS 7171 for use in street lighting installation given the I.E Code of Practice for Electrical Safety in Public Lighting Operations.
 - The Contractor shall provide, erect and maintain such traffic signs, lamps, barriers and traffic control signals, and such measures may be necessitated by the construction of the works in accordance with the recommendations contained in Chapter 6 of the Traffic Signs Manual.

- SEWERAGE**
- All Statutory Undertakers, including cable installation companies, must be contacted prior to commencing any works to ascertain the location and depth of their apparatus. In the event of any protection or diversionary works being necessary to their apparatus then any costs incurred will be the contractors responsibility both for arranging and any payment.

- CONCRETE**
- Concrete to be C20/25 to BS 8500-2. Maximum aggregate size 20mm. Minimum cement content of 280kg/m³. Maximum water/cement ratio of 0.45.
 - All materials must be approved by the Engineer prior to use. Casting certificates are required for C10-type 1 sub-base material.
 - Comply with DCTM BS 12.
 - Foundations to be cast against natural vertical earth face. Any over excavation to be filled to the appropriate level indicated, non-flammable, with the appropriate grade concrete specified.
 - All surplus material to be removed from the plan footprint.
 - The engineer shall require 28 days curing for concrete formation, subsequent grade #, etc.
 - All excavations for concrete foundations shall be inspected, checked for safe bearing capacity (see above), and labelled with red 20mm concrete in one working day.
 - Any over dig to reach a suitable formation level and removal of 'soft spots' encountered during excavation works to be made up in compacted type 1 material or Gen 3 concrete. All formations to be approved by the L.A. Inspector.
 - Foundations are to be positioned centrally about columns/walls (M0).

- Road Marking Notes**
- Reference numbers refer to diagram numbers in The Traffic Signs Manual.
 - Road markings shall be white thermoplastic coated.
 - Road markings are to be laid according to the SMM6 - minimum slip resistance class 55 to BS EN 1408.
 - All road markings and traffic signs shall comply with the Traffic Signs regulations and general directions and are to be in accordance with BS 6821-1.

Key:
 ————— Proposed Road Alignment Profile
 - - - - - Existing Ground Profile

FOR APPROVAL

PA	SH	Base layout updated	18.01.23
PA	SH	Cross sections updated	24.11.22
PA	SH	Highway boundaries updated	04.10.22
PA	SH	Preliminary Issue	23.04.22
Rev	By	Details	Date
		(P=Preliminary, T=Tender, C=Construction, R=Record)	

Client: **CANMOOR**

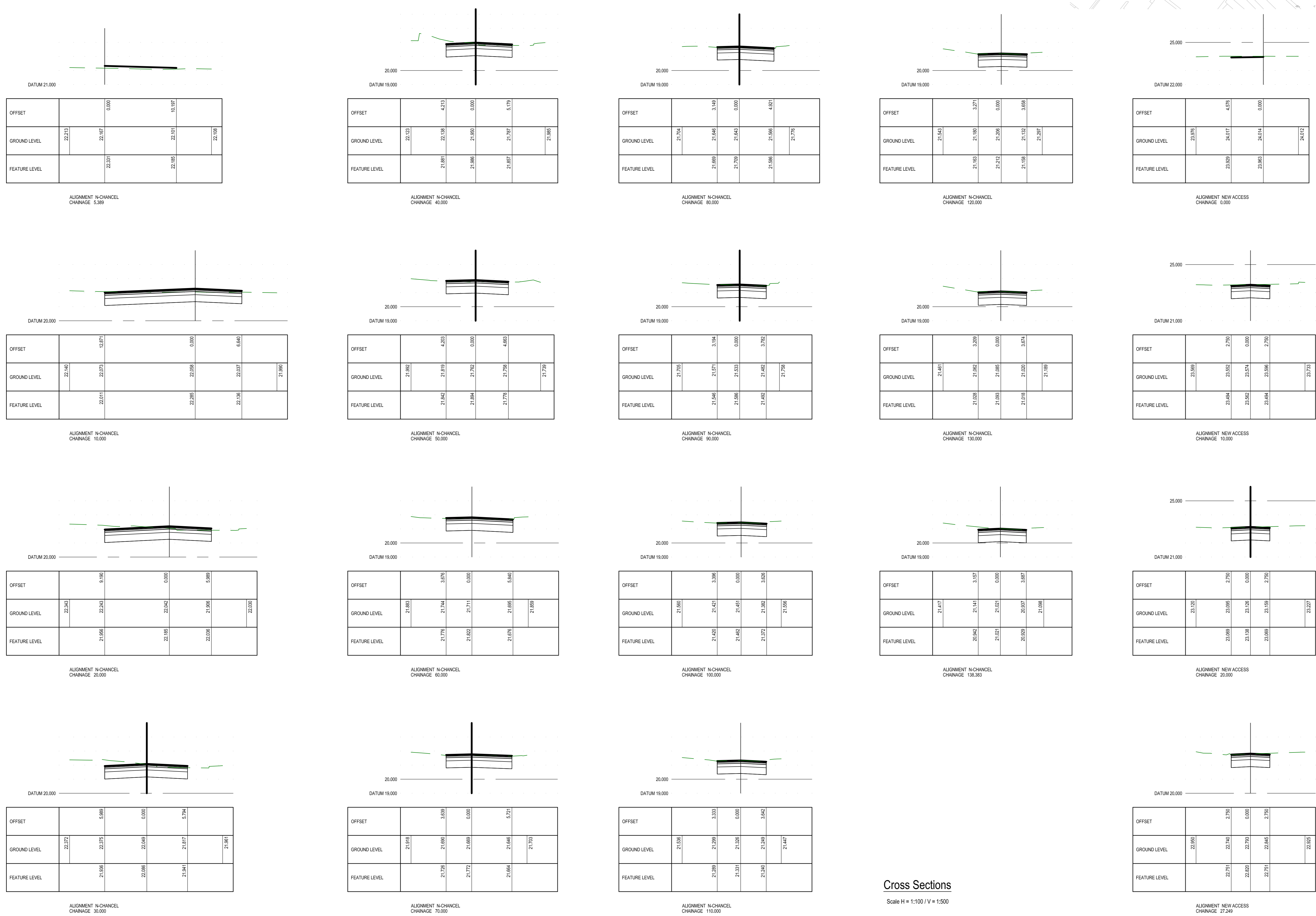
Project: **Access Park, Gloucester**

Drawing Title: **Section 278 Cross Sections**

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Date:	Apr 22	Drawing No.:	17-7295-0111	Issue No.:	P
Scale:	As Shown @ A1	Drawn:	SH	Issue Rev.:	4
Chd.:	JB	© copyright CDP Ltd			



Cross Sections

Scale H = 1:100 / V = 1:500