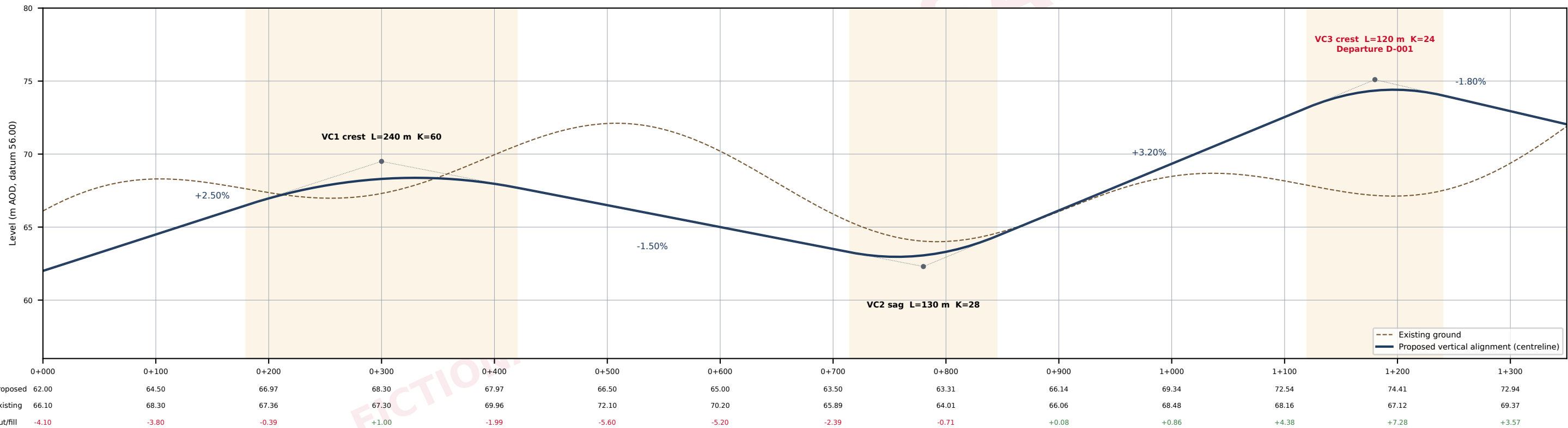
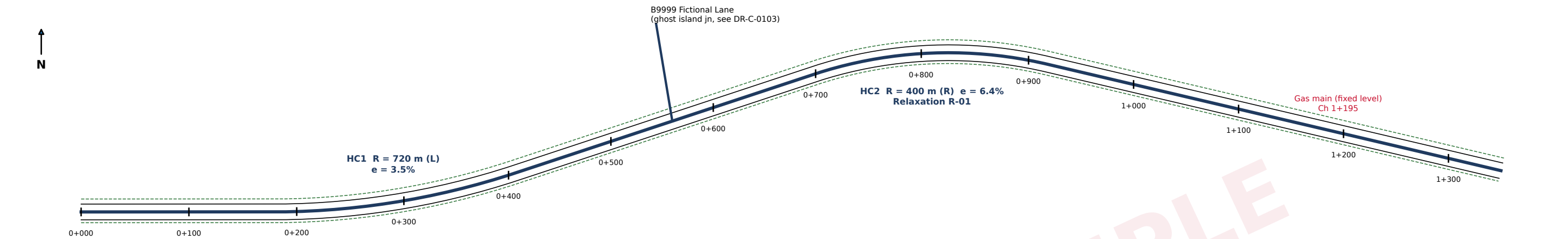


A999 MAINLINE - PLAN AND PROFILE (DMRB CD 109)



CURVE DATA						
Curve	Type	Start Ch	End Ch	R / L (m)	K / e	Remark
HC1	Horiz.	0+180	0+410	R 720	e 3.5%	Compliant
HC2	Horiz.	0+700	0+920	R 400	e 6.4%	Relaxation R-01
VC1	Crest	0+180	0+420	L 240	K 60	Compliant
VC2	Sag	0+715	0+845	L 130	K 28	Compliant
VC3	Crest	1+120	1+240	L 120	K 24	Departure D-001

GRADE TABLE			
Grade	From	To	Gradient
G1	0+000	0+300	+2.50%
G2	0+300	0+780	-1.50%
G3	0+780	1+180	+3.20%
G4	1+180	1+350	-1.80%

- NOTES
1. Design speed 100 kph (Band 100A), single carriageway S2, CD 109/CD 127.

2. Chainages in metres along A999 CL.

3. K = curve length per 1% algebraic change in gradient.

4. SSD 160 m desirable; 106 m at VC3 subject to Departure D-001.

5. Levels to fictional local datum.

6. Read with RP-C-0001 & DR-C-0102.

7. Not for construction.

Revision

P01 2026-10-13 First issue – illustrative sample

RoadRail Design

roadraildesign.com

Project

A999 Example Junction Improvement, Fictional Town

Title

A999 Mainline - Plan & Profile Ch 0+000 to 1+350

Client

None – illustrative capability sample

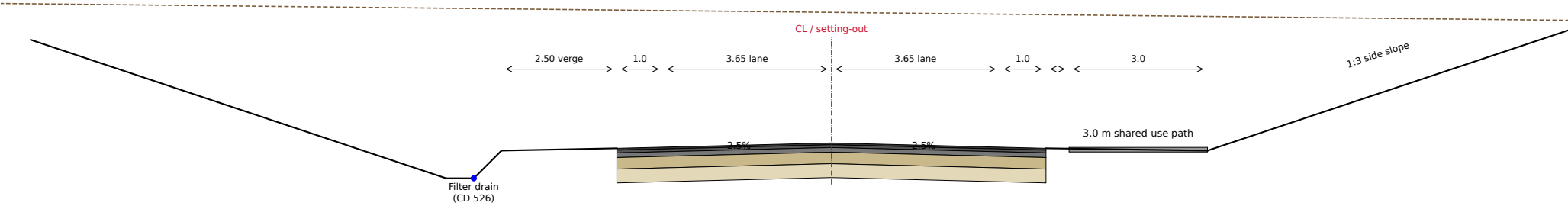
Status

S0 – Work in progress (sample)

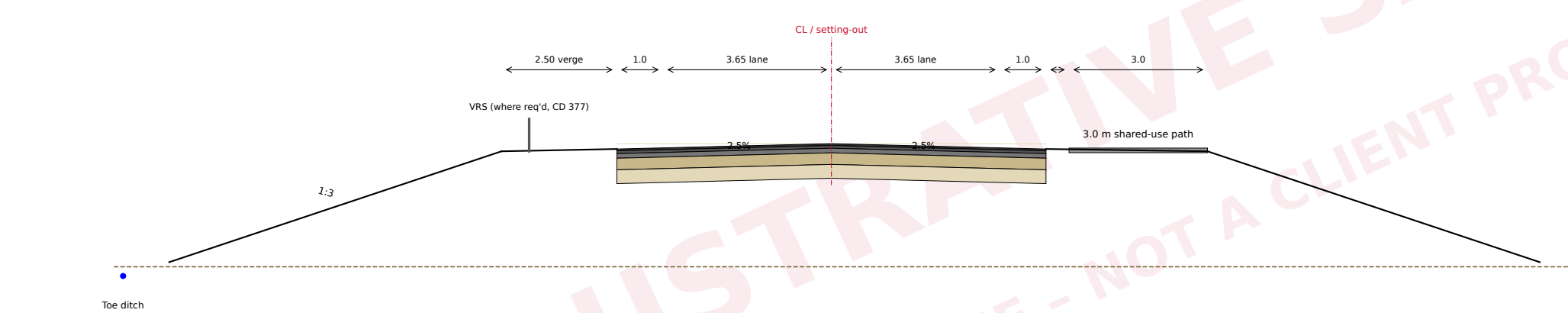
Document no.	Rev	Scale	Date
RRD-SMP-XX-XX-DR-C-0101	P01	1:2500 H / 1:250 V	2026-10-13

TYPICAL CROSS-SECTIONS - S2 SINGLE CARRIAGEWAY (CD 127)

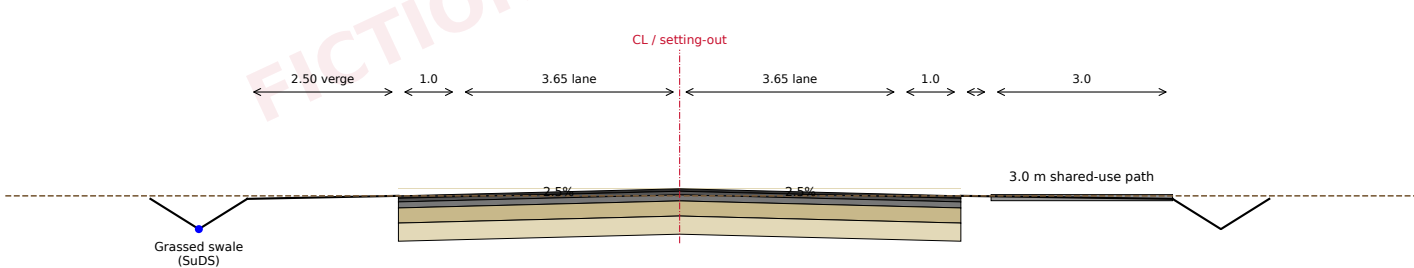
SECTION A-A IN CUTTING (typ. Ch 1+150)



SECTION B-B ON EMBANKMENT (typ. Ch 0+780)



SECTION C-C AT GRADE (typ. Ch 0+050)



PAVEMENT BUILD-UP (INDICATIVE, CD 226)

Layer	Material (indicative)	Thk
Surface course	SMA 10 surf PMB, PSV ≥ 60	40
Binder course	AC 20 dense bin 40/60	60
Base	AC 32 dense base 40/60	100
Subbase	Type 1 unbound (Series 800)	250
Capping	Class 6F2 (CBR ≤ 5% only)	300
Total (excl. capping)	Design to CD 226 – to be confirmed	450

NOTES

1. All dimensions in metres unless noted; pavement in mm.
2. Crossfall 2.5% on straights; superelevation per CD 109 on curves.
3. Side slopes 1:3 subject to geotechnical design (CD 622).
4. Drainage to CD 526/CD 521; outfall rates per CG 501.
5. VRS need assessed to CD 377.
6. Not to scale if printed below A3.
7. Not for construction.

Revision

P01 2026-10-13 First issue – illustrative sample

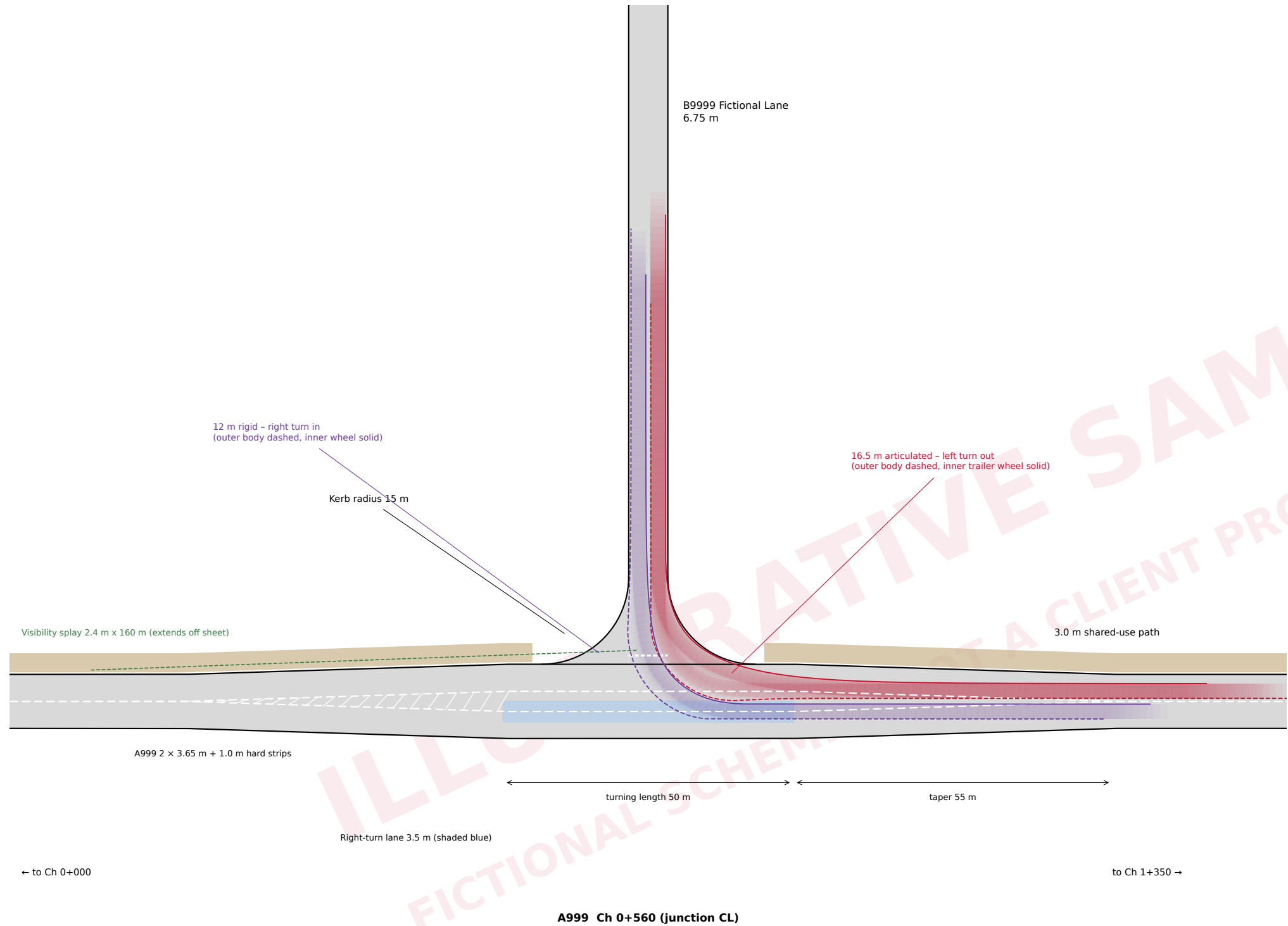
RoadRail Design

roadraildesign.com

Project A999 Example Junction Improvement, Fictional Town
Title **A999 Typical Cross-Sections - Cut, Fill, At-grade**
Client None – illustrative capability sample
Status S0 – Work in progress (sample)

Document no.	Rev	Scale	Date
RRD-SMP-XX-XX-DR-C-0102	P01	1:100	2026-10-13

A999 / B9999 GHOST ISLAND PRIORITY JUNCTION - GENERAL ARRANGEMENT (CD 123) WITH SWEEPED PATH



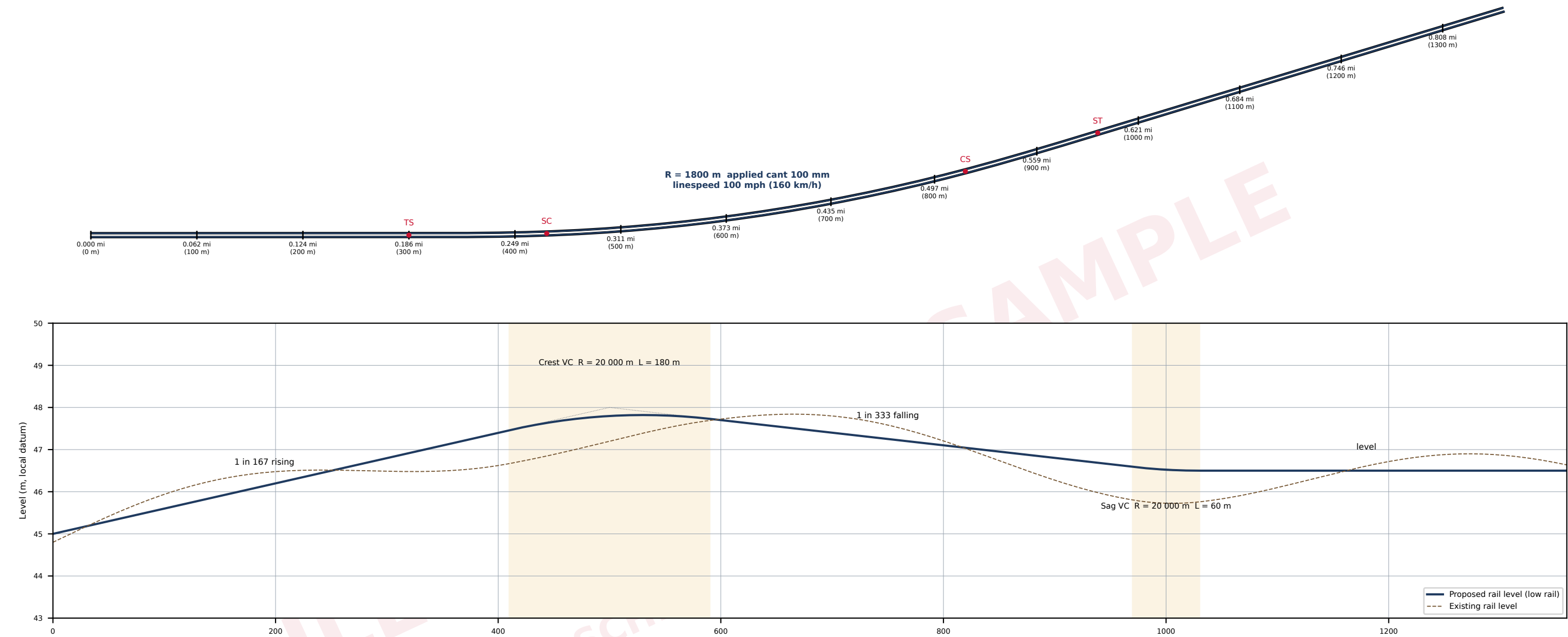
- NOTES
- 1. Junction to DMRB CD 123 (ghost island priority).
 - 2. Design speed 100 kph on A999; minor road approach 30 mph.
 - 3. Swept paths are simplified envelopes for illustration; full tracking (e.g. AutoTrack/ Vehicle Tracking) required at detailed design.
 - 4. Design vehicles: 16.5 m articulated, 12 m rigid (refuse vehicle to adopting authority spec.).
 - 5. Works within the existing highway to be delivered under a Section 278 agreement (Highways Act 1980) – indicative only.
 - 6. Road markings to TSRGD 2016 (diagram nos. to be confirmed). Signs not shown.
 - 7. Lengths to be checked against CD 123 tables for the design speed.
 - 8. Not for construction.

LEGEND

■ grey	carriageway (proposed)
■ blue	right-turn lane
■ buff	shared-use path
— red	swept path envelope (outer dashed)
- - green	visibility splay

Revision			
P01 2026-10-13 First issue – illustrative sample			
RoadRail Design			roadraildesign.com
Project	A999 Example Junction Improvement, Fictional Town		
Title	A999/B9999 Ghost Island Junction - S278 General Arrangement		
Client	None – illustrative capability sample		
Status	S0 – Work in progress (sample)		
Document no.	Rev	Scale	Date
RRD-SMP-XX-XX-DR-C-0103	P01	1:500	2026-10-13

FICTIONAL BRANCH LINE - TRACK ALIGNMENT PLAN, PROFILE AND CANT/SPEED TABLE (NETWORK RAIL STYLE)



CANT / SPEED TABLE (Ea applied cant, Cd cant deficiency; Eq = 11.82 V²/R, V km/h)

Element	From (m)	To (m)	Radius (m)	Ea (mm)	Eq. cant (mm)	Cd (mm)	Speed (mph)	Remark
Straight	0	300	∞	0	0	0	100	
Transition T1	300	430	∞→1800	0→100	-	-	100	Cant gradient 1:1300; dE/dt 34.2 mm/s
Circular C1	430	830	1800	100	168	68	100	Cd 68 mm; dCd/dt 23.2 mm/s
Transition T2	830	960	1800→∞	100→0	-	-	100	Clothoid, linear cant, 34.2 mm/s
Straight	960	1360	∞	0	0	0	100	

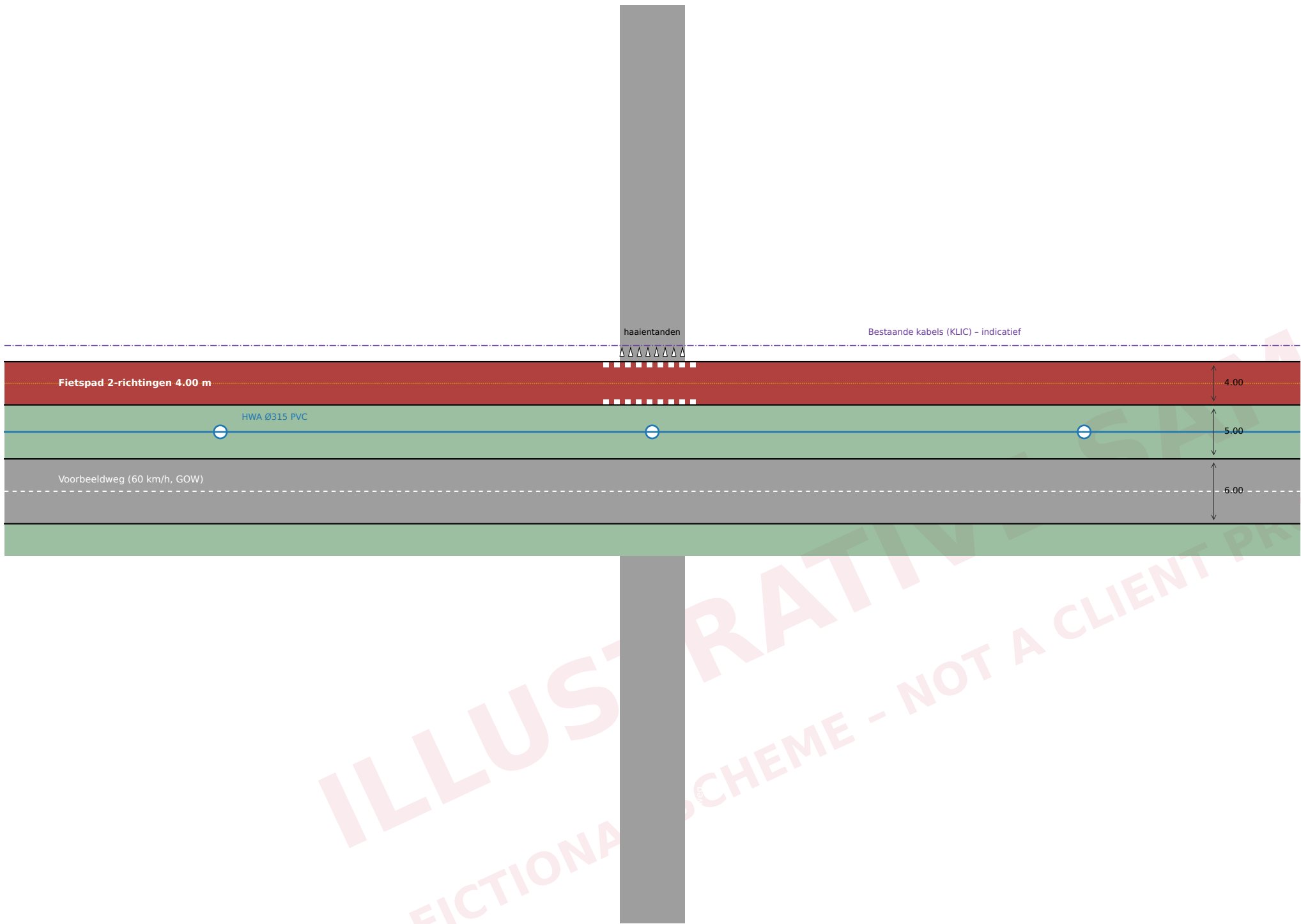
NOTES

- Track geometry to generic NR track design standard principles (NR/L2/TRK/2049 - confirm current issue & limits with Infrastructure Mgr).
- Standard gauge 1435 mm, CWR on concrete sleepers. 4 ft 6 ft notation not shown.
- Mileages fictional; metric chainage shown.
- Limiting values are indicative only and must be verified against the current standard.
- Not for construction.

Revision

P01 2026-10-13 First issue - illustrative sample

RoadRail Design				roadraildesign.com
Project	Fictional Branch Line Realignment, Example Junction			
Title	Fictional Branch Line - Track Alignment Plan & Profile			
Client	None - illustrative capability sample			
Status	S0 - Work in progress (sample)			
Document no.	Rev	Scale	Date	
RRD-SMP-XX-XX-DR-C-0104	P01	1:2500 H / 1:250 V	2026-10-13	



NLCS LAYER LEGEND (CROW / NLCS-style naming)

- C-WE-RIJBAAN-BESTAAND (existing carriageway)
- C-WE-FIETSPAD-NIEUW (new cycle path, red asphalt)
- C-WE-BANDEN-NIEUW (kerbs)
- C-WE-MARKERING-NIEUW (markings)
- C-GR-BERM-NIEUW (verge / green)
- C-RI-HWA-NIEUW (storm water sewer)
- C-KL-KABELS-BESTAAND (existing cables, KLIC)
- C-AL-MAATVOERING (dimensions)

Pattern: <discipline>-<object>-<sub>-<status>, status NIEUW / BESTAAND / TE VERWIJDEREN. Illustrative - check against the current NLCS release and the client's own layer table.

NOTES / OPMERKINGEN

- Cycle path width per CROW Design Manual for Bicycle Traffic (two-way, 4.0 m) - indicative.
- Separation verge $\geq$ 1.5 m urban / wider rural; 5.0 m shown incl. HWA sewer.
- Priority crossing with shark's teeth (haaiantanden), red asphalt continued.
- Existing cables from fictional KLIC data - verify by trial trenches before works.
- Coordinates RD New / NAP heights not shown (fictional site).
- Phase: VO (preliminary design) - sample.
- Not for construction / niet voor uitvoering.

Revision

P01 2026-10-13 First issue - illustrative sample

RoadRail Design		roadraildesign.com	
Project	Voorbeeldweg Cycle Path, Fictional Municipality (NL)		
Title	Fietspad Voorbeeldweg - Situatie (NLCS layer demo)		
Client	None – illustrative capability sample		
Status	S0 – Work in progress (sample)		
Document no.	Rev	Scale	Date
RRD-SMP-XX-XX-DR-C-0105	P01	1:250	2026-10-13