
a new railway for the new millennium

rheilffordd newydd I'r milflwydd newydd



Rheilffordd Eryri

an introduction to the route for steam locomotive crews

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PETER J LAWSON
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DISTANCES & DESIGNATIONS see notes i & ii		PLACE NAME see note iii	DESCRIPTION OF SITE see note iv	W	COMMENTARY see note v	GRADIENT see note vi	LINE SPEED see note vii	LOCO MANAGEMENT NOTES see notes viii & ix
1 see footnote (note ix) below	OB 20.00 (OBA)	CAERNARFON	TEMPORARY TERMINUS now accommodates 10 coaches, with the loop extended 80 metres up the hill: kilometric distance marker 20 (= 'milepost 0') is set at footbridge [why 20, you ask? - to avoid any possibility of confusion with the FR, or just in case we extend back to Bangor!]			LEVEL	5mph	right away - steady as the train leaves the station: take up the weight of your train as it traverses the top-end points by opening up incrementally but quickly to around 80psi ¹ @ 40% cut off (N.B. the gradient starts immediately) and gradually winding the reverser in to about 20% cut off, or until the chest gauges read around 120psi ¹
		85 metres between fouling points	departures for Rhyd Ddu typically at 10.50, 12.20, 13.50 & 15.20 , plus 16.50 in high summer					
	OB 20.29 (OBB)	Lôn Parc	footbridge		splendid views of Caernarfon Castle on RH	▲▲	10mph	no need to ease as the train tops the 'summit' (the grey post on the RH) in view of the revised line-speed here: leave everything alone, and acceleration will be impressive: at the time of writing, 26/06/06, there's a 15mph TSR here due to track distortion
	20.50	⇒	'summit' - where former BR tracks (parallel single lines, to Llanberis & Afon Wen) separated			▲▲▲	15mph	
	UB 20.69 (UBC)	St Helens Road	brick underbridge		= the original St Helen's Road	LEVEL	20mph	steep gradient resumes a few metres BEFORE the overbridge: but let everything be...
	OB 20.77 (OBD)		concrete road overbridge		dating from mid-1990s road improvements	▲▲▲		
	LC 20.80 (LCA)		footpath & cycleway crossing					
	UB 20.87 (UBE)	Pont Seiont	two-span brick river bridge		Afon Seiont, from Snowdon's northern slopes	▲▲	20mph	gradient eases beyond Coed Helen bridge, but there's no need to make adjustments
	OB 20.95 (OBF)	Coed Helen	brick & iron road overbridge with prop		old Nantlle tramway tunnel visible on RH	▲▲		
	LC 21.43 (LCB)	Hendy	open crossing, private road	1 W	awkward T-junction with poor 'up' visibility	▲	STOP	shut off (and brake minimally) at the end of the long straight, far enough in advance of Hendy for brakes to be off by the time you stop, or for vacuum to be quickly recreated: check crossing v. carefully, especially the totally blind RH - whistle, and cross at 5mph
21.61	⇒				△	15mph	negligible gradient, and only 15mph, so no need to overdo it: open up to 60psi ¹ once you're over the crossing, then wind in to 90psi ¹ @ 15/20%, and be patient - it's a bit steeper after the farm crossing, but not for long...	
LC 21.64 (LCC)	Pant Farm	accommodation crossing	1 W	completely renewed in early 2005, Llanfaglan Road runs parallel+over	▲			
OB 21.71 (OBH)	Llanfaglan Road	brick & iron overbridge			▲	15mph	W means you MAY encounter road traffic: Fron Goch & Bronydd deserve special care and attention - far more than any other Phase 1 (Caernarfon→Dinas) LCs	
LC 21.87 (LCD)	From Goch	accommodation & public footpath crossing	1 W	frequently used by adjacent garden centre	△			
LC 22.09 (LCE)	Bronydd	occupation crossing	1 W	crossing gates on LH commonly left open	▲	15mph	brief spell of steeper gradient will slow the train a teeny-weeny bit - best ignore this!	
22.15	⇒			on a gentle LH bend, where the Lôn Eifion cycle path curves away and returns, an annoying up-and-down 'hump' with no name: passengers won't notice it, but loco crews can't miss it!	▽			
22.41	⇒			nice long straight gives crew good sighting of Bontnewydd Halt, ahead	▲	request stop	you may have squeeze the brake emerging from the LH bend here, on account of the short downhill stretch into the long straight: N.B. hidden W on fireman's side!	
LC 22.51 (LCF)	Cefn Werthyd	accommodation crossing	1 W		▲			
22.65	BONTNEWYDD	halt		single platform on RH	△	20mph	short-lived gradient variations (there are several either side of Bontnewydd) are typical of the WHR: best opt for 'average' regulator settings & accept minor speed fluctuations	
LC 22.70 (LCG)	⇒	public footpath crossing		evidence of the erstwhile Nantlle tramway's meanderings on LH	▲			
UB 22.82 (UBJ)	Gwyrfai Viaduct	three-span ² brick road & river bridge			▲▲	20mph	<ul style="list-style-type: none"> climb to Dinas begins in earnest here: up to around 100psi¹ (assuming 15/20%) thro the platform, a bit more as the train leaves the viaduct, still more at Bronant (giving 140psi¹, unless you wind out a ¼-turn) and easing beyond Plas Dinas the final 1 in 50's a good place for sanding the boiler tubes: N.B. danger of slipping here, what with low light, a steep gradient, wet rails, and sap from trees 	
LC 23.00	⇒	kilometric distance marker			▲▲			
UB 23.12 (UBK)	Plas y Bont	brick accommodation underbridge		open views of Anglesey and Menai Straight on RH give way to long tree-lined 'avenue'	▲▲▲	20mph		
23.22	⇒				▲▲▲			
LC 23.36 (LCH)	Bronant	accommodation crossing	1 W					

NOTES

note i mileage (included here for guidance only - this is a metric railway!) is given on the left of each cell, and kilometrage on the right: both are taken from Caernarfon footbridge, NOT the buffer stops

note ii OB = overbridge, e.g. a road crossing **over** the railway; UB = underbridge, e.g. a river crossing **under** the railway; LC = level crossing; figures indicate kilometrage, starting at 20; original designations are in brackets; LC locations in **red & bold** require particular care to be exercised by loco crews, in view of poor sighting and/or higher-than-average 'traffic' levels

note iii Phase 1/2 names are in line with the 'official' list: beyond Waunfawr, route identification should be either by name ('official' names are in **bold**: all others are UNofficial) or by reference to the numeric designations listed in column 2

note iv W in the RH margin indicates whistle boards - both directions = †, and one or other direction = † or ‡: N.B. one board may cover as many as three crossings, and boards may be located as far as 400m away from the LC

note v miscellaneous points of local or historical interest here, as well as train-operating matters: references to LH (left hand) or RH (right hand) are made in the context of an 'up' or southbound journey - so RH = Garratt driver's side

note vi ▲ indicates a significant (i.e. steep or prolonged) gradient - this is intended to be diagrammatic rather than literal - as follows: △ = 1 in 100-200, ▲ = 1 in 80-100, ▲▲ = 1 in 60-80, ▲▲▲ = 1 in 40-60, and ▽ = downhill in the case of Phase 3, i.e. the Waunfawr to Rhyd Ddu extension, I've marked as "temporary" those line speeds which will, in time, be raised: it could be a long wait, however, and - for the time being - these are officially PSRs, not TSRs!

note vii despite one or two recommendations to "squeeze the brake", I admit that it isn't generally sound practice: however, there are numerous locations on this rollercoaster railway where it definitely makes more sense than any alternative!

note ix recommendations concerning steam chest pressures are no more than relative and approximate indications of the amount of work needed to reach or maintain line speed: they assume [a] a typical 6-coach+1-wagon train, [b] moving to a cut-off position half way between full-gear+mid-gear (I call this 40%) as soon as the train starts moving, and [c] winding the reverser right back, i.e. to a point approximately ½ from mid-gear (I call this 15/20%) at **12-15mph: running with short cut-offs in this way, and shutting the vacuum ejector off at every stop, will SAVE up to 200 litres per loco day = £75 = about £20000 in a year!** ("SAVE" = the difference between 1000+1200 litres of fuel per day!)

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	OB 23.56 (OBN)	Plas Dinas	brick private road overbridge		imposing standard gauge structure & cutting	▲▲	20mph	<ul style="list-style-type: none"> Dinas up home (in fact a modified 'ladyboard', on the Caernarfon side of LC23.87, normally showing yellow/vertical LEDs at 12+6 o'clock) warns whether or not Dinas shunting token is 'out': so lights lit = 'proceed', and no lights = STOP! gradient eases after the home signal + levels out at LC23.87: shut off just BEFORE the 'home' and you'll be doing 15mph by LC23.87 & 10mph by the loop points look out for a white TOTP indicator light, beyond the carriage shed, in the distance 		
	LC 23.87 (LCI)	Dinas Farm	accommodation & public footpath crossing	† W	<ul style="list-style-type: none"> crossing is frequently used by farmer ex-Nantlle tramway disappears to RH 					
4km	24.00	North Yard	kilometric distance marker		carriage sheds, yard + ex-WHLR HQ on LH		15mph			
2½m	24.02			⇒						
1 see footnote (note ix) on page 1	24.30	<div style="border: 1px solid red; padding: 2px; display: inline-block; color: red; font-weight: bold;">DINAS</div> length of loop = 211 metres	STATION and PASSING LOOP		<ul style="list-style-type: none"> ex-LNWR/LMS/BR station closed 1951 RH running through 15-coach platforms 'automatic' weighted points at both ends NWNGR terminus & buildings on LH 	LEVEL	10mph end of section	~ DINAS ~ report arrival (phone in station building), change/exchange/check token (make sure the guard sees this) and obtain permission to proceed: if you're authorised by Control to go up on the ticket, make sure you (i.e. driver, fireman + guard) see the staff first		
	LC 24.37 (n/a)		departures for Rhyd Ddu at 11.02, 12.32, 14.02 & 15.32, plus 09.25 & 17.02 in high summer							
	OB 24.39 (OBP)		South Yard	brick & concrete road overbridge					we cross over from 'old BR' to 'old WHR'	△
	LC 24.46 (LCI)			works access crossing		† W			loco shed on LH: works facilities on RH	
	OB 24.61 (OB1)			A487		stone road overbridge				under main Porthmadog→Caernarfon road
3m	24.83	Dinas Cutting	⇒	cutting was completely filled in after 1937 closure, and dug out afresh for re-opening		temporarily 10mph	DOWN TRAINS - the Dinas down home (on the Waunfawr side of the A487 overbridge) tells you if the shunting token's 'out' - STOP if no LEDs showing: beware of sunshine!			
5km	UB 24.91 (UB5)	Cae Moel	concrete stream bridge		UB5 & OB6 originally one 'triple-layer' bridge	▲▲▲	20mph	'Garratt dips' approaching almost every Phase 2 or 3 (Dinas→Rhyd Ddu) overbridge result in gentle (i.e. fast) 'ins' & steep (i.e. slow) 'outs': but don't bother your fireman with lots of twiddling - just accept (and expect) momentary ±10% speed variations		
	OB 24.95 (OB6)		stone road overbridge							
	LC 25.05 (LC2)	Rhos Isaf Road	kilometric distance marker		Rhos Isaf Road on RH: old ballast heap on LH					
3½m	LC 25.19 (LC3)	Plas Bodaden	accommodation crossing	↓ W	long straight cutting through green pastures	▲▲	20mph	gradient eases through the Bodaden curves, but this is barely noticeable: the 1 in 40 returns at UB25.56 as you enter the LH bend under the trees. This one hiccup apart, a single regulator setting (140psi! @ 15/20% cut-off) should suffice for the 1½ miles between Cae Moel + Morgan's Hump, with no tweeking/tapping or easing/squeezing!		
	LC 25.53 (LC5)		occupation crossing		winding S-bend, with farm buildings on RH					
	UB 25.56 (UB10)	stone accommodation underbridge		overgrown with trees before re-opening						
	UB 25.84 (UB12)	Rhostryfan Road	stone & concrete stream underbridge		Rhostryfan Road is close by on the LH	▲▲▲				
	LC 25.87 (LC6)		accommodation crossing	† W						
LC 25.91 (LC7)	public footpath crossing									
6km	26.00		kilometric distance marker							
4m	UB 26.01 (UB13)	Dolau Gwyn	stone & concrete stream underbridge		overgrown with trees before re-opening	▲▲▲	20mph	again, train speeds towards the bridge & slows down afterwards - especially downhill		
	LC 26.09 (LC8)		accommodation crossing	† W						
	OB 26.23 (OB14)	Pont Wernlas Ddu	stone & concrete road overbridge		long straight: former construction site and siding in field on RH, now nicely landscaped					
4m	26.44	Cae Wernlas Ddu	public footpath crossing				no easing of gradient here, but train may accelerate slightly on long+easy straight			
7km	LC 26.92 (LC10)	Cae Hen	accommodation crossing	↓ W	wonderful views of Anglesey on LH	▲▲	20mph	gradient appears to ease, and train tends to accelerate, for some 200m beyond Cae Hen - just where you need to be slowing! - so best knock the regulator back to around 70/80psi! (and may be wind 'out' a notch or two) as you cross LC26.92		
	UB 27.23 (UB19)		⇒		stone stream bridge					
4½m	27.24		⇒							
8km	OB 27.26 (OB20)	Tryfan Junction	stone road overbridge		derelict former station building on RH - but (contrary to OS map) station is NOT open!	▲▲▲▲	10mph	<ul style="list-style-type: none"> ignore 1 in 36 beyond the bridge: you need to slow down for LC27.52 watch out for horses and unsuspecting riders - much more likely here than 'traffic' DON'T add more steam beyond the crossing, cos the gradient eases dramatically - 120psi! @ 15/20% (yes, notched right back) should see speed return to 20mph on the 1 in 100 here, with no adjustment of either regulator or reverse! train will stop accelerating between Gwredog Isaf and the Tan yr Allt badger sets: at the time of writing, 26/06/06, there's a 10mph TSR at LC28.26 due to track distortion beyond LC28.26, the railway's virtually level: best ease (to 40psi! @ 15/20%) and squeeze the brake - a MUST if you're to keep down to 15mph at LC28.42! 		
	27.35		⇒		remains of Bryngwyn branch visible on RH					
	LC 27.52 (LC12)		open crossing, public road	† W						
5m	OB 27.88 (OB24)	Gwredog Isaf	stone & concrete accommodation overbridge		commonly known as the 'ugly' bridge	△	20mph			
	UB 27.98 (UB25)		stone & concrete occupation underbridge		<ul style="list-style-type: none"> steam-only † W before Gwredog Isaf (to warn horse-riders) on the down only three badger sets within railway on RH, just beyond Tan yr Allt farmtrack gate 	LEVEL				
8km	28.00		kilometric distance marker			LEVEL	15mph			
5m	28.05	Tan yr Allt	⇒			LEVEL	15mph			
	LC 28.26 (LC13)		accommodation crossing			LEVEL				

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	LC 28.42 (LC14) UB 28.43 (UB26) LC 28.50 (LC15) UB 28.62 (UB27)	Aspinalls	accommodation footpath crossing stone accommodation underbridge accommodation crossing stone accommodation underbridge	↑ W	tight, wheel-squealing S-bend, with superb views of the train FROM the train - and it's a hell of a long way down to the river!	△	15mph	sharp reverse curves at Aspinalls (another hidden W on the left-hander) will slow you briefly, but you shouldn't need to adjust regulator or reverser to regain+sustain 15mph
5½m	28.85	'Landslip Area'	⇒		site (& plentiful evidence) of 1970s landslip railway wanders seemingly aimlessly through woodland reclaimed by nature since closure: buzzards often to be seen swooping here	LEVEL		a mere 1 in 500 from here, requiring only 40psi ¹ (assuming the same 15/20% cut off) to keep going
9km	LC 28.91 (LC16) 29.00	Cae Goronwy	accommodation crossing ⇒ kilometric distance marker	↑ W		△	15mph	gradient increases at Bryn Siriol - between the 'Cae' S-bend and 'Coed' LC29.43 - but this requires no more than an extra 10psi ¹ (N.B. the mnemonic "S for steam" works in BOTH directions, i.e. up and down - even if you get it mixed up with Aspinalls!)
	LC 29.11 (LC17) LC 29.43 (LC19)	Cae Bryn Siriol Coed Bryn Siriol	accommodation crossing accommodation crossing	↑ W ↑ W	crossing name appears on topside gatepost	△		ease - or shut off - just before the whistle board, to prevent train accelerating
6m	29.65	half-way point, Caernarfon → Rhyd Ddu			Afon Gwyrfaï now alongside railway on LH	△	10mph	check for TOTP indicator light, visible only briefly through the bridge: the driver can see this, but the fireman will have to peer between chimney and dome as you approach
10km	LC 29.88 (LC20) 30.00	Cynrant	accommodation crossing ⇒ kilometric distance marker			LEVEL		steep climb into station will slow you down an awful lot
	LC 30.08 (LC21)	Cae'r Afon	accommodation crossing	↓ W		LEVEL	10mph	report arrival, take water, change or exchange token (don't forget to show this to the guard) and obtain permission to proceed: cabinet & BT phone is under the footbridge
	OB 30.14 (OB42)	Waunfawr Roadbridge	stone road overbridge		• first of several encounters with A4085 • NWNGR bridge, lowered for NGG16s	▲▲▲		~ WAUNFAWR ~
	30.28	WAUNFAWR	STATION, FOOTBRIDGE ³ and PASSING LOOP • Phase 2 terminus, Aug 2000 - Aug 2003 length of loop = 216 metres		• RH running round single island platform • weighted points at both ends of the site • old station building dismantled+stored	LEVEL	end of section	down train crews, don't swap tokens with up steam trains until they've come to a stand!
	LC 30.36 (LC22)	Snowdonia Parc ³	occupation crossing		railway continues up the valley, sandwiched between two vast mountains: Mynydd Mawr on RH (698m) & Moel Eilio on LH (726m)	△	10mph	near-imperceptible grade (1 in 600) south of Waunfawr requires very little steam - an initial 40psi ¹ to get your train moving, winding back (a) as you come through the points, and again (b) beyond LC30.93, where the level 'gradient' induces gentle acceleration: the challenge is to get as far as Bryn Gloch 'bank' on just one regulator setting - but you'll probably have to cheat, and 'squeeze' across LC30.36 or 'add a tad' at LC31.00!
6½m	30.46	⇒	accommodation crossing			△	15mph in UP direction only	• you're ok accelerate if you're satisfied that ★LC30.93+LC31.00 are free of traffic
	LC 30.48 (LC23) LC 30.74 (LC24) LC 30.93★(LC25)	Llwyn Bedw	accommodation crossing kilometric distance marker accommodation crossing accommodation crossing	↑ W ↑ W	'Llwyn Bedw' is across the road on RH A4085 runs close and parallel on RH from 10.80km(30.80)→11.30km(31.30) - so lots of slow-moving cars & distracted drivers! Garreg Fawr quarry branch embankment and gateway visible (90° & 45° to railway) on LH	LEVEL		• 70psi ¹ +15/20% (i.e. minimal) cut-off is all that's needed for this beautifully-finished stretch of roadside 'main-line', where you can overtake on the left - with impunity!
11km	LC 31.00★(LC26)	⇒	occupation crossing	↑ W	Tan y Ffordd (on LH) is Plas Cedric Lodge	△	20mph	• several Phase 3 whistle boards have been erected on the 'wrong' (fireman's) side: firemen should WHISTLE for their driver, or TELL their driver!
7m	LC 31.13 (LC27) 31.26	Tan y Ffordd	occupation crossing ⇒ accommodation crossing	↑ W	Gwyrfaï Terrace (45° to railway) on RH	LEVEL		• change of gradient at LC31.28 is minimal, and there's no need to worry if you pick up 1-2mph: you'll lose whatever you gain by the time you're onto UB51/31.59
	LC 31.28 (LC28) LC 31.40 (LC29) 31.55	⇒	accommodation crossing	↑ W	quarry branch and [b] former station building	△	20mph	• a few metres uphill towards UB51/31.59 are followed by several downhill: whatever published gradient profiles say, you'll be accelerating all the way to OB54/31.87
	UB 31.59 (UB51) LC 31.62 (LC30) UB 31.64 (UB52)	Pont Betws Garmon	metal river bridge on stone abutments ⁴ accommodation crossing stone & concrete flood relief bridge ⁴	↑ W	modified ex-BR bridge from South Yorks Betws Garmon (as you'll see on OS maps) actually extends from here to Plas y Nant	△		• OB31.74: only 150mm (6") clearance above chimney here (AND it's long enough to warrant the carriage lights going on?) but there's no real risk of blow-back
	OB 31.74 (OB53)	Betws Garmon Roadbridge	stone & concrete road overbridge ⁴		recently-widened+lengthened roadbridge (tunnel?) incorporates one - what a pity not both! - of original 1873 De Winton beams	▽	20mph	• new OB31.87 bridge means a deeper cutting and stiffer climb through Bryn Gloch camping & caravan site (supposedly 1 in 60, but it feels like you're climbing a wall!) - you'll need around 120psi ¹ (and down to 30%?) to maintain your speed here
	OB 31.87 (OB54)	⇒	stone & concrete occupation overbridge ⁴ kilometric distance marker	↑ W	carries new caravan-site access road cutting made necessary by OB54 being built 'low' to ease the passage of caravans	LEVEL		• DON'T sand your boiler tubes here: you're now in the Snowdonia National Park ⁵
12km	LC 32.00	Bryn Gloch	public footpath crossing accommodation crossing	↑ W	waterworks on LH (but no evidence of the former quarry branch here) & campsite on RH	▲▲▲	20mph	• at the top of Bryn Gloch bank, you'll have to come all the way down to 40psi ¹ (and back to 15/20%) - one coach at a time, but p.d.q.! - in readiness for...
7½m	LC 32.07 (LC31) LC 32.29 (LC32) LC 32.46 (LC33)	⇒	occupation crossing		Tros y Gol construction site WAS on the LH	LEVEL		• once OTT, there's a cracking ruler-straight racetrack through open fields
	UB 32.48 (UB56)	Pont Tros y Gol	metal river bridge on stone abutments		refurbished original NWNGR 'bowstring' bridge, formerly known as Cae Hywel	LEVEL	15mph speed limit ahead starts where the gradient returns, as you enter the LH bend - you'll have to shut off at LC32.48 (or ease off even earlier?) to slow down sufficiently	

³ with no refreshment facilities at Rhyd Ddu, this remains THE place to eat+drink?

⁴ four new bridges (including the infamous UB51) were among the WHLR Co's worst headaches!

⁵ NO SMOKE!

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8m	LC 32.63 (LC34)	Salem	accommodation crossing	↓↑↑ W	for the next mile, the views are on the left	△	15mph	1 in 110 starts at the far end of Bryn Gloch straight: despite the 15mph PSR, you need MORE steam here (70psi! @ 25%) than you had on before easing for Pont Tros y Gol: your speed will vary a good deal (12-16mph?) round all these bends - best let it!
	LC 32.85 (LC35)		accommodation crossing		A4085 + Salem (part of the Betws Garmon community, named after the local chapel) on the opposite side of the narrowing valley			
32.87	⇒							
LC 32.90 (LC36)	public footpath crossing		original NWNGR stile & gateposts, LH+RH					
13km	33.00		kilometric distance marker		• site (who knows?) of erstwhile Salem Halt			
LC 33.07 (LC37)	occupation footpath crossing		• footbridge over river → road/village on LH					
LC 33.25 (LC38)	occupation crossing		• Bryn Afon (with resident Manx cat) on RH					
33.37	↑ W		new access road crosses from RH → LH					
LC 33.45 (LC39)	⇒		¶ one W board covers all three crossings		pretty but enclosed wooded section can be brighter in winter (no leaves!) than summer			
OB 33.49 ⁶ (OB62)	Pont Cerrig y Rhyd		accommodation footpath crossing ¶		a gorgeous spot, right next to the A4085 - sharp reverse curves (LH, then RH) with the railway squeezing between rockface, river & ex-mill weirs (on LH) on FR-like slate ledge			
LC 33.58 (LC40)		Nant Mill	stone accommodation overbridge ⁶	↑ W				
8½m	UB 33.65 ⁶ (UB64)	Pont Plas y Nant	accommodation footpath crossing ¶		refurbished original NWNGR bridge: others have recently been seen in the river here			
	LC 33.66 (LC41)		metal river bridge + stone abutments		once earmarked as a passing loop + temporary terminus, Plas y Nant has had its fair share of problems: since May 2005, there's been a halt, and the PW siding's been gradually dismantled			
14km	LC 33.95 (LC42)	PLAS Y NANT	accommodation footpath crossing ¶		halt, with accommodation crossing			
	34.00	⇒	kilometric distance marker		short platform on RH, with car park on LH			
9m	34.35	Tyn y Weirgloedd	⇒		remote area of quiet, open pastures is very pretty and little known, being hidden from the road - it's the last we see of Afon Gwyrfa!			
	34.48	⇒	⇒		midway thro long LH bend: shades of Gysgafal			
9m	LC 34.50 (LC44)	Castell Cidwm	occupation crossing	↓ W	• LC43 wasn't built - it was cheaper for the FR Co to buy the land & so avoid the need			
	OB 34.57 (OB71)		stone road overbridge		• Castell Cidwm Hotel & Llyn Cwellyn on RH			
15km	34.62	Cwellyn	⇒		site & name of short-lived former NWNGR station - hence the widened formation here			
	LC 34.79 ⁷ (LC45)	Caeauwynion*	accommodation crossing ⁷	⇒	the bit we waited so long for! leaving the narrow Gwyrfa Gorge behind, the railway crosses the valley (Nant Betws) and heads out into wide-open countryside - a wild-life paradise - offering passengers breathtaking and unbroken views (for the next 2½ miles or so) of Llyn Cwellyn and (opposite and beyond) Beddgelert Forest, and - directly ahead - the grey slate tips of Glanrafon & Rhos Clogwyn quarries			
LC 34.95 (LC45A)	accommodation crossing							
LC 34.98 ⁸ (LC46)	occupation crossing ⁸		↑ W					
35.00	kilometric distance marker		⇒					
9½m	LC 35.28 (LC47)	Llwyn Onn	accommodation crossing	⇒	public bridleway (up Snowdon) & farmtrack			
	LC 35.49 (LC48)		accommodation crossing	↓ W				
9m	LC 35.63 (LC49)	Llwyn Onn	accommodation crossing	↓ W	open (i.e. ungated) crossing ⁹			
	LC 35.79 (LC50)		accommodation crossing	↓ W				
9m	UB 35.84 (UB77)	Llwyn Onn	stone stream bridge	↓ W	don't let the wonderful views off to the right cause you to miss seeing Snowdon's summit AND it's unique rack-railway, both clearly visible here - weather permitting - on the left!			
	LC 35.85 (LC51)		open (i.e. ungated) crossing ⁹		halt ⁹			
35.95	SNOWDON RANGER	halt ⁹		short platform (and Youth Hostel) on RH				

⁶ easily-accessed location is photographers' honeypot: it even has its own car-park!

⁷ likely to be temporary in constant use by farmer

⁹ starting point for one of the most popular & manageable walking routes up Snowdon

SNOWDONIA NATIONAL PARK no blowing off, no oil or fuel spills, no more whistling than absolutely necessary and (above all) no smokel

• 13.70km(33.70)→14.00km(34.00) i.e. a majority of the Plas y Nant site (including the halt) is unstable peat bog, up to 10m deep: **formation is subject to settlement - crews are asked to be particularly vigilant & report anything suspicious to Control**

• with insoluble alignment problems on the northern approach, it looks like we're saddled with a PSR (or a long-term TSR?) pending major work on the roadbridge

• 10mph if dry; 5mph if water covers the rails & the GREEN arrow's above water level; **STOP if water reaches the bottom of the RED arrow - unless authorised by Control**

• 150 metres of climbing through the old station site require a short spell of 80+psi (assuming you're a notch or two 'down') then settling down to 100psi! @ 15/20%: **beware of obstacles on+near the track around Castell Cidwm & Caeauwynion!**

the Welsh Highland's 'long drag'

2½ miles of almost-continuous 1 in 90 begin midway between LC34.79 and LC34.98: if it weren't for the Snowdon Ranger & Glan yr Afon slowings, we might have been able to set up the regulator, reverser, oil controls and injector as the train emerges on to the 1 in 75 beyond Castell Cidwm bridge, and put our feet up until Tro Ffridd!

down ☹ we go... ease right down at the end of the 400m straight, as you enter the RH bend, and check for 'traffic' on RH whilst you can see it

Llwyn Onn has poor visibility, but it's used regularly by walkers AND farm vehicles: you can accelerate as soon as you're over the crossing

up ☺ we go... best check with the guard before LC35.85 in BOTH directions, in case of passengers wanting to board or alight at the Halt?

DISTANCES & DESIGNATIONS see notes i & ii		PLACE NAME see note iii	DESCRIPTION OF SITE see note iv	W	COMMENTARY see note v	GRADIENT see note vi	LINE SPEED see note vii	LOCO MANAGEMENT NOTES see notes viii & ix	
16km	36.00		kilometric distance marker						
10m	36.09		⇨		Vodafone signal ¹⁰ becomes progressively weaker from this point: ref RH column ⇨			we resume 100psi! @ 15/20% 'cruise control' for this patch, which feels+drives much the same as the section BEFORE Snowdon Ranger	
10 mobile reception otherwise good	LC 36.13 (LC52)	⇨	accommodation crossing	↓ W			15mph		
	LC 36.31 (LC53)		accommodation crossing	↓ W					
	LC 36.52 (LC54)		accommodation crossing	↓ W	§ in regular use by farmer	☺☺☺			
	LC 36.70 (LC55)		accommodation crossing§		① Bron-y-fedw Isaf - adjacent farm on RH	☺☺			
	UB 36.83 (UB90)		stone accommodation overbridge	↓ W	② Bron-y-fedw Uchaf - adjacent farm on RH	☺			
10½m	36.89		⇨						
UB 36.91 (UB91)			stone & concrete stream bridge					• steeper gradient from 16.77km (70m after LC36.70) → 17.12km (50m before viaduct) will slow you down, but you'll still need to shut off - soon after UB36.91	
17km	37.00		kilometric distance marker		shepherd's crook of a bend			• houses below Glan yr Afon Viaduct take their water supply from below the railway: so NO SPILLS (e.g. oil or injector overflow) + NO STOPPING on/near the viaduct!	
11 remote + inaccessible: seldom photographed	UB 37.17 (UB95)	Glan yr Afon Viaduct	metal river bridge (stone abutments)		sitting high above Afon Treweunydd, the Welsh Highland's celebrated 'viaduct' - so called! - has in fact a single 33m span, and was originally known locally as Dingle Bridge ¹¹	×	10 mph	easier gradient approaching the viaduct is (like Dduallt) compensation for curvature: re-aligned RH bend on the south side - a huge improvement! - no longer feels 'tight'	
	LC 37.26 (LC57)		accommodation crossing	↓ W	returning whence we came				
	37.48	Glanrafon Incline ¹²			• ex-quarry incline on LH + incline pointing directly to Snowdon's summit ¹² • new rail alignment is much further from the edge of the wall than the old	☺			
LC 37.66 (LC58)	accommodation crossing								
11m	37.70		on a clear day, you can often pick out the Snowdon Mountain Railway train on its last lap, dramatically silhouetted against the skyline...	↓ W	from here up to Rhyd Ddu, twists & turns galore as the train clings to an increasingly precipitous hillside	×	15 mph		
UB 37.71 (UB100)	LC 37.84 (LC59)	Clogwyn y Gwŷn	stone accommodation overbridge	↓ W		×		10 mph	
			accommodation footpath crossing ¹³		farm is below railway on RH				
			accommodation footpath crossing ¹³						
18km	38.00		kilometric distance marker		David Charlesworth's recent painting of the K1 Garratt ¹⁴ was 'seen' at LC38.17, where trains can be observed for 15 unbroken minutes - all the way from Castell Cidwm to Rhyd Ddu				
13 locked	LC 38.17† (LC61)	Clogwyn Incline	accommodation crossing		† in daily use from October to May	text only			
	LC 38.33‡ (LC62)		public footpath crossing	↓ W		×			
11½m	38.50		† one gate below the railway, but TWO above it - footpath runs adjacent to line for 25m: a nice spot for that unusual photo		hugely impressive 120° RH bend, with climactic views down & across Nant Betws: Ffridd Isaf (farmhouse high on LH) is Plas Dave Kent		15 mph		
LC 38.64 (LC63)	Tro Ffridd	accommodation crossing		beware of errant walkers and photographers	×				
UB 38.77 (UB114)		stone & concrete accommodation underbridge							
19km	39.00		kilometric distance marker		train now faces Caernarfon!	text only			
14 @WHRs	LC 39.08 (LC64)	RHYD DDU	accommodation crossing	↓ W	new line moves to the left of the old WHR alignment here	×	10 mph		
	LC 39.16 (LC65)		occupation & bridleway crossing						
12m	39.31		191.4 metres above sea level		TEMPORARY TERMINUS ¹² "South Snowdon" in NNWGR days LH = loco run-round; RH = 12-coach platform	but you may be able to text from on top of the rear-unit lubricator reservoir!		• stop at the end of the fencing on the driver's side (post painted red) to ensure disabled access to train	
15 funding for remainder of line to Porthmadog announced 8/9/2004	39.56		length of loop = 188 metres		arrivals at 11.50, 13.20, 14.50 & 16.20; also, in high summer, 10.25 & 17.50			• TOTPs and (currently non-operational) water towers have been installed at north+south ends of the loop	
	PORTHMADOG by 2009?				• end of running line @ 19.56km & 12.16m • south end of proposed Phase 4 passing loop ¹⁵ • point of return to original WHR alignment ¹⁵ • 600m → Pitts Head (highest point on the line) ¹⁵ • exactly 20km → Porthmadog (Harbour Station) ¹⁵	very weak Vodafone signal at southern extremity of site, but you'll need to go beyond the rails and on to higher ground for it to work - fortunately, there's a BT phone in the platform cabinet	text only	• when running round, wait to be called forward by an authorised member of train or station staff - on the car-park side of the foot-crossing - before coupling	
								• ring Ty Mawr on 01766 890837, and get your lunch delivered direct to the loco!	
								departures for Caernarfon at 12.20, 13.50, 15.20 and 16.50; also, in high summer only, at 10.50 & 18.20	
								opened May 1881 closed September 1916 re-opened July 1922 finally closed May 1937 re-opened once more 18 August 2003 ¹⁵	



terrific picture! - K1 at CLOGWYN Y GWŶN - terrible firing!

- gradient resumes on Glanrafon straight: best to ignore the 15mph, as it lasts only 300m!
- settle down to 100psi! with the reverser wound all the way back to 10% (yes, almost mid-gear!) for a pleasant 10mph plod to the terminus!
- curvature at Clogwyn is tight, with little room for transitions: engine-unit vacuum bags have commonly failed here!

RHYD DDU
opened May 1881
closed September 1916
re-opened July 1922
finally closed May 1937

re-opened once more
18 August 2003¹⁵