CairnGorm
MOUNTAIN

Cairngorm Funicular Railway

Certification Records – A3 Drawings

Turner & Townsend
Management Systems

Copy No: 01

Notes relate to Cruders DIS 11/11/15
notes made by [redacted] 24-9-18

A. F. Cruden Associates
Consulting Engineers

A. F. CRUDEN ASSOCIATES DRAWING REGISTER

Drawing No	Rev	Drawing Title
Funicular Structure		
Alignment / Routing		
CA150/2/01	E	Site Plan Sheet 1 of 7: Chainage 0 to 340
CA150/2/02	D	Site Plan Sheet 2 of 7: Chainage 360 to 700
CA150/2/03	D	Site Plan Sheet 3 of 7: Chainage 700 to 1040
CA150/2/04	D	Site Plan Sheet 4 of 7: Chainage 920 to 1260
CA150/2/05	D	Site Plan Sheet 5 of 7: Chainage 1220 to 1560
CA150/2/06	D	Site Plan Sheet 6 of 7: Chainage 1460 to 1800
CA150/2/07	D	Site Plan Sheet 7 of 7: Chainage 1660 to 1920
CA150/2/08	C	Funicular - Horizontal Geometry
CA150/2/11	D	Longitudinal Section Sheet 1 of 7: Ch 0 to 340
CA150/2/12	D	Longitudinal Section Sheet 2 of 7: Ch 360 to 700
CA150/2/13	D	Longitudinal Section Sheet 3 of 7: Ch 700 to 1040
CA150/2/14	D	Longitudinal Section Sheet 4 of 7: Ch 920 to 1260
CA150/2/15	D	Longitudinal Section Sheet 5 of 7: Ch 1220 to 1560
CA150/2/16	D	Longitudinal Section Sheet 6 of 7: Ch 1460 to 1800
CA150/2/17	D	Longitudinal Section Sheet 7 of 7: Ch 1660 to 1920
CA150/2/18	B	Funicular - Vertical Geometry

missing CA 150/2 /31–37

Towers		
CA150/2/44	G	Tower Elevations Sheet 1 of 2
CA150/2/45	F	Tower Elevations Sheet 2 of 2
CA150/2/67	D	R-C Details - Towers
CA150/2/68	B	R-C Details :- 4m Long Base Type 1A
CA150/2/69	B	R-C Details :- 4.5m Long Base Type 2C
CA150/2/70	C	R-C Details :- 4.5m Long Base Type 2A
CA150/2/71	C	R-C Details :- 4.5m Long Base Type 2B
CA150/2/72	C	R-C Details :- 4.8m Long Base Type 3
CA150/2/73	B	R-C Details :- 5.15m Long Base Type 4
CA150/2/74	B	R-C Details :- 5.6m Long Base Type 5
CA150/2/75	A	R-C Details :- 6.0m Long Base Type 6
CA150/2/60	B	R-C Details Crosshead 1 - 91No. required
CA150/2/64		R-C Details Crosshead 2 - 2No. required

40–43 & 48 missing

61, 62 65, 66 missing

A. F. CRUDEN ASSOCIATES DRAWING REGISTER

CA150/2/77	✓	R-C Details : Crosshead 51
CA150/2/78	A	R-C Details : Crosshead 52+56

Anchor Blocks		
CA150/2/38	✓	Anchor Block 48 - RC Details
CA150/2/63	D	Anchor Block R.C. Details - Type 3

Precast Beams		
CA150/2/76	D ✓	Precast Concrete Beam Detail 1 of 2
CA150/2/79	C ✓	Precast Concrete Beam Detail 2 of 2
CA150/2/46	✓	Details of tapered steel bearing supports
CA150/2/39	A ✓	Insitu Diaphragm Details

Steelwork		
CA150/2/92	✓	Passing loop, enlarged part section sheet 1
CA/150/2/47	D ✓	Steelwork Superstructure of Passing Loop
CA150/2/49	B ✓	Rail Bolt / Beam Support / and Bearing Details
CA150/2/93	✓	Passing loop, enlarged part section sheet 2
CA150/2/94	✓	Passing loop, enlarged part section sheet 3
CA150/2/95	✓	Passing loop, enlarged part section sheet 4
CA150/4/18		Railway support beams Bottom Station-anchor block 0

Tunnel missing 53 56-58

CA150/2/50	C D	Tunnel General Arrangement
CA150/2/51	H ✓	Tunnel Details (Sheet 1 of 2)
CA150/2/52	F G	Tunnel Details (Sheet 2 of 2)
CA150/2/54	B ✓	Tunnel Details - Ptarmigan Station
CA150/2/55	A ✓	Earthworks/Landscaping - Tunnel Entrance

Bottom Station

CA150/4/04	C	Bottom Station Roof Plan
CA150/4/05	D	Steelwork Plan Supporting 637m Level
CA150/4/06	D	Ground Floor Slab Layout & Details
CA150/4/07	F	Foundation Plan & Details
CA150/4/08	B	Steelwork Elevations
CA150/4/09		Part section through daylodge at track entrance

80→91 missing

A. F. CRUDEN ASSOCIATES DRAWING REGISTER

CA150/4/11	A	North Elevation and Plan of Ground at the Bottom Station
CA150/4/15		Daylodge Footbridge Details
CA150/4/17	B	General Arrangement and RC Drawing of Anchor Block/Beam at Bottom Station
CA150/4/22		Part section through lower track support beam

Ptarmigan

CA150/6/03	E	Roof Steelwork Plan
CA150/6/04	B	Plant Room Steelwork Plan
CA150/6/05	E	Upper Floor Steelwork Plan
CA150/6/06	A	Plan on plant room floor thickening
CA150/6/07	H	Foundation Plan & Details
CA150/6/08	C	Cross Sections
CA150/6/09	B	Steelwork Cross Sections
CA150/6/16		Plan/Sections on Ptarmigan Sub-Station

Shieling

CA150/5/02	A	Middle Station Platform Details

UNWIN JONES PARTNERSHIP DRAWING REGISTER

Drawing No	Rev	Drawing Title
Bottom Station		
General Architectural		
1489/B/P01	K	Lower Level Plan 634.00
1489/B/P02	K	Upper Level Plan 637.00
1489/B/P/03	J	Level 639.788 Plan
1489/B/S01	D	Section A – A Through Entrance Lobby, Ticket Hall, Platform and Workshop
1489/B/S02	F	Section B – B Along Centre Line of Tracks.
1489/B/S06	C	Section F – F Through Control Room
1489/B/S08	B	Section H – H Along Centre Line of Tracks Looking Towards Ticket Hall.
1489/B/E01	E	Elevation on Grid 1
1489/B/E02	C	Elevation on Grid A
1489/B/E03	C	Elevation on Grid Line 8
1489/B/E04	C	Elevation on Grid Line 11
1489/DE06/1	B	South Façade Track Opening Detail at Track Level.
1489/DE06/02		South Façade Track Opening Detail at Track Level.
Public and Private Space Definition		
1489/B/P01	O	Lower Level Plan 634.00
1489/B/P02	J	Upper Level Plan 637.00
1489/B/P/03	G	Level 639.788 Plan
Fire Escape Routes		
1489/B/P01	J	Lower Level Plan 634.00
1489/B/P02	J	Upper Level Plan 637.00
1489/B/P/03	G	Level 639.788 Plan
Floor Finishes		
1489/B/Finishes 01	G	Finishes Schedule
1489/B/P01	P	Lower Level Plan 634.00
1489/B/P02	P	Upper Level Plan 637.00
1489/B/P/03	O	Level 639.788 Plan
Flow Diagram		
1489/B/flowdiagram 01	B	Flow Diagrams

UNWIN JONES PARTNERSHIP DRAWING REGISTER

Ptarmigan

General Architectural		
1489/C/PT/P02	Z	Lower Level 1086 - 1089
1489/C/PT/P03	Z	Upper Level 1090 – 1092
1489/C/PT/P04	K	Plant Room at 1095
1489/C/PT/P05	D	Roof Plan
1489/C/PT/S01	D	Section A - A
1489/C/PT/S02	G	Section B – B
1489/C/PT/S03	C	Section C – C
1489/C/PT/S04	C	Section D – D
1489/C/PT/S05	F	Section E – E
1489/C/PT/S06	C	Section F – F
1489/C/PT/S07	B	Part Section G – G
1489/C/PT/S08	G	Part Section G – G
1489/C/PT/S10	A	Section J – J
1489/C/PT/S13	A	Section M – M
1489/C/PT/E01	B	Elevation on Grid Line 1
1489/C/PT/E03		Elevation on Grid 28
1489/C/PT/DE63	A	Louvre and Shielding Details
1489/PT/DE64	B	Louvres and Shielding Gable Ends
Railway Domain		
1489/C/PT/P02	Q	Lower Level 1086 - 1089
1489/C/PT/P03	S	Upper Level 1090 – 1092
1489/C/PT/P04	L	Plant Room at 1095
Public and Private Space Definition		
1489/C/PT/P02	Q	Lower Level 1086 - 1089
1489/C/PT/P03	S	Upper Level 1090 – 1092
1489/C/PT/P04	L	Plant Room at 1095
Floor Finishes		
1489/PT/FN/01	H	Finishes Schedule
1489/PT/F02	E	Lower Level 1086 - 1089
1489/PT/F03	E	Upper Level 1090 – 1092
1489/PT/F04	E	Plant Room at 1095

UNWIN JONES PARTNERSHIP DRAWING REGISTER

Flow Diagram		
1489/PT/flowdiagram02	B	Flow Diagrams
1489/PT/flowdiagram03	B	Flow Diagrams

BLACKWOOD PARTNERSHIP DRAWING REGISTER

Blackwood Partnership
Consulting Engineers

Drawing No	Rev	Drawing Title
Symbols		
1080ET(600)001	A	Electrical Services Key to Symbols
1080HD(500)001	A	Mechanical Services Key to Symbols
Power Supply		
1080ED(610)002	B	Proposed MV Schematic
Lift Cars and Shafts		
1080EA(660)001	A	Generic Dimensions for Lift Cars and Shafts
Earthing and Lightning Protection		
1080ED(690)001	A	Earthing schematic
1080ES(694)002	-	Lightning Protection Details
Luminiares and Wiring Diagrams		
1080ET(630)001	A	Luminaire Schedule Sheet 1 of 2
1080ET(630)002	A	Luminaire Schedule Sheet 2 of 2
1080ED(600)007	A	Ptarmigan and Bottom Station Wiring Diagrams
Fire Alarm System		
1080ET(670)100	A	Cause & Effect Diagram
Bottom Station		
Electrical		
1080ED(610)B001	A	Main LV Schematic
1080EP(620)B001	A	Lower Level Plan General Power Layout
1080EP(620)B002	A	Upper Level Plan General Power Layout
1080EP(620)B003	A	Control Room Level General Power Layout
1080EP(630)B001	A	Lower Level Plan Lighting Layout
1080EP(630)B002	A	Upper Level Plan Lighting Layout
1080EP(630)B003	A	Control Room Level Lighting Layout
1080EP(640)B002	A	Upper Level Plan Communications Layout
1080EP(670)B001	A	Lower Level Plan Fire Alarm Layout
1080EP(670)B002	A	Upper Level Plan Fire Alarm Layout
1080EP(670)B003	A	Control Room Level Fire Alarm Layout
1080ED(670)B004	A	Fire Alarm Schematic

BLACKWOOD PARTNERSHIP DRAWING REGISTER

Blackwood Partnership
Consulting Engineers

1080EP(694)B001	A	Lightning Protection
1080EP(694)B001	A	Lightning Protection
1080ED(600)008	A	Electrical Service Zone & Suspension Details

Ptarmigan

Electrical		
1080ED(610)P001	B	MV Schematic
1080ED(610)P002	A	LV Schematic
1080EP(620)P001	B	Lower Level Plan General Power Layout
1080EP(620)P002	B	Upper Level Plan General Power Layout
1080EP(630)P001	B	Lower Level Plan Lighting Layout
1080EP(630)P002	B	Upper Level Plan Lighting Layout
1080EP(630)P005	A	Upper Plant Level Lighting Layout
1080EP(640)P002	B	Upper Level Plan Communications Layout
1080EP(600)P01	-	Electrical Plant Area Layouts
1080EP(670)P001	B	Lower Level Plan Fire Alarm Layout
1080EP(670)P002	B	Upper Level Plan Fire Alarm Layout
1080EP(670)P005	A	Upper Plant Level Fire Alarm Layout
1080ED(670)P006	A	Fire Alarm Schematic
1080EP(694)P001	B	Lightning Protection
Mechanical		
1080HP(579)P01	A	Smoke Extract System
1080HP(684)P01	B	Sprinkler Pump Room – Lower Plant Level
1080HP(684)P02	A	Extent of Sprinkler Protection – Lower Level
1080HP(684)P03	A	Extent of Sprinkler Protection – Upper Level
1080HP(684)P04	A	Extent of Sprinkler Protection – Funicular Plant Level
1080HP(684)P05	A	Extent of Sprinkler Protection – Upper Plant Level
1080HP(684)P06	B	Wet Riser & Sprinkler Layout

Tunnel

1080EP(620)P003	A	Tunnel General Power Layout
1080EP(630)P003	A	Tunnel Lighting Layout
1080EP(670)P003	A	Tunnel Fire Alarm Layout
1080EP(689)P003	A	Tunnel Intruder Detection System Layout

649 P003 Tunnel PAVA layout

Shieling

1080EP(630)S001	A	External Lighting Layout

649 P001 lower Level Plan PAVA
649 P002 Upper Plant Level.

DOPPELMAYR DRAWING REGISTER

Drawing No	Rev	Drawing Title
Alignment		
80005843N222300	C	Seilrollenauflasten
System Layout		
0 / 22 - 12528		General Arrangement
Clearance Envelopes		
80006014N221002	-	Movement of Carriers
8006015N221002	-	Space Envelope of Carrier / in Station
8006017N221002	-	Space Envelope of Carrier / Straight Track
8006018N221002	-	Space Envelope of Carrier / Curved Track
8006019N221002	-	Movement of Carrier, Passing Loop / Straight Track
80007541N221002	-	Space Envelope of Carrier / Shieling Intermediate Station
80005447N221003	-	Recess for Tunnel Entrance
Funicular Line Equipment		
80006074N221002	-	Rail fixation - station funicular Cairngorm
80008133N222301	-	Slide plate
80007627N222300	-	Expansion joint L max = 200mm Rail S33
80006074N221003	-	Dilatation dimension and forcesplan
80004641N222300	-	Schragrolle dia 400 symmetrisch
8000507N222300	-	Seiltragrolle dia 400
80005755N222300	-	SRG – Sheave Straight
80005063N222300	-	Tilted Line Sheave
8005064N222300	-	Standard Gage
80007701N22230	-	Seilfanger
0/22 - 12501	a	Ausweiche Uebersicht
0/22 - 12502	-	Ausweiche Berg
1/22 - 12503	-	Ausweiche Tal
Bottom Station Equipment		
80005691N221003	b	Forces and Recess Plan Counter Rope Tension Device / Track End Buffer
80005700N223700	-	Inserted Frame No 1 Complete
80005760N223700	-	Inserted Frame 2 Buffersupport

80005772N223700	-	Return Sheave Frame
80005811N223700	-	Inserted frame 3 Zylindersup
80005814N223700	-	Inserted Frame Layout
8007583N223700	-	Fencing Protective Equipment
80005888N223700	-	Counter Rope Tension Device
8005913N223700	-	Tensioning Carrier
057-ABHAG-J864-0-0-A (Mannesmann Rexroth drg)	-	Tension Rope
HS057-J864-2-A (Mannesmann Rexroth drg)	-	Tension Rope (Schematic)

Ptarmigan

0 / 22 - 12527	-	Top Station Arrangement
80005446N221003	a	Recess and Force Plan
80005439N105000	-	Bremszange 60kN/660
80005580N221003	a	Force Plan Top Station
80005635N223700	-	Return Bullwheel dia 2240
8005603N225000	-	Silkondensator Komplett
80005675N225000	-	Antriebsscheibe dia 3150
80005701N225000	-	Counter Sheave Complete
80005704N225000	-	Rope Drive Complete
8005770N225300	-	Hilfsantrieb Komplett
80007485N225000	-	Fencing Protective Equipment
80000562N225000	-	Zentrifugalauslosung
2/10-04926	C	Centrifugal Switch
2/22-090208	-	Groove Cutting Device
0/16-01900	A	Service Brake
6M8805897 (Flender drg)	-	Masszchng B3SH 18 3
057-ABHAG-J892-0-0-A (Rexroth drg)	-	Bremslueftaggregat NG100
HS057 J892-2-A (Mannasmann Rexroth drg)	-	Brake Unit (Schematic)
057-ABHAG-J852-0-0-A (Rexroth drg)	-	Hilfsantrieb

HS057-J852-2-A (Mannesmann Rexroth drg)	-	Auxiliary Drive (Schematic)

Carriages

80006879N226000	-	Zug/Gegenseilbefestigung Links
8005965N221002	-	Rev - Wagen
8006386N226001	-	Lasche Zu Zuggurt
80007490N223100	-	Universal Batterieladung
80000981N226000	a	Fangbremse
80007813N226000	-	Fahzeug
80001000N226001	a	Limit Clamp dia 24
80001000N226000	-	Limit Clamo dia 39
057-ABHAG-J826-0-2-A (Mannesmann Rexroth drg)	-	Rail Brake
3-059468 (Mannesmann Rexroth drg)	01	Hydraudyne Cylinders B V
HS057-J826-2-A	-	Rail Brake (Schematic)

FREY DRAWING REGISTER

Drawing No	Rev	Drawing Title
Control Cabinets		
AST – SS0	03/08/00	Concrete Base to Control Cabinets 1 & 2 Upper Station Switch Room
Carriages		
00 – 9700 Page 6		Overview Energy Consumption Car
Control System		
Documentation PSS 3000 24.01.01		PSS 3000 Failsafe: Block Diagram SW Drive Control for Aerial Trams and Funiculars
Documentation PSS 3000 24.01.01		PSS 3000 Standard: Block Diagram SW Drive Control for Aerial Trams and Funiculars
Programmer Functions in PLC (PSS)		Block Diagram Programmer Functions (PKW) FB 138 Programmer Cairngorm Funicular
2 Prinzipschema Page 1		Technology Drive Diagram
2 Prinzipschema Page 2		Limit Switches on the Track Overview Track
2 Prinzipschema Page 5		Overview Drive and Control Modes Control Signals Drive
2 Prinzipschema Page 6		Overview Drive 1 + Drive 2 Controls Signals Drive
2 Prinzipschema Page 7		Overview Network PLC, PC Overview IT Network DST, IST, CST
2 Prinzipschema Page 9		Communication DST – Car 1 / 2 Remote Supervision System
2 Prinzipschema Page 10		Communication DST, IST, CST Remote Supervision System
Control Consuls		
AST – KP Page 2		Operators Stand + BSH Upper Station Control Room
AST – KP Page 6		Operators Stand + BSH Upper Station Control Room
GST – KP Page 1		Operators Stand + KP Bottom Station Control Room
GST – KP Page 3		Operators Stand + KP Bottom Station Control Room
WAG – NOTBED Page 1		Bedienplatte + Ubersicht Operators Panel Compartment 1 (Lower Compartment)
WAG – FUHRERSTAND Page 1		Bedienplatte + Ubersicht Operators Consul Cars 1 + 2

FREY DRAWING REGISTER

WAG – FUHRERSTAND Page 1		Bedienplatte BPB 1 Wagen 1 + 2 Ubersicht Operators Consul Cars 1 + 2 (Facing up the funicular)
WAG – FUHRERSTAND Page 1		Bedienplatte + FBK Wagen 1 + 2 Ubersicht Rail Brake Consul

GANGLOFF DRAWING REGISTER

GANGLOFF BERN-SCHWEIZ

Drawing No	Rev	Drawing Title

Carriage Colour Scheme

	03/04/00	Colour Scheme

Carriages - Structural

0-10.22.302	C	Car for 120 + 1 Passengers
0–11.10.023	-	Buffer Beam Valley Side Wagen 1 Links
0–11.10.024	-	Buffer Beam Valley Side Wagen 2 Links
0–11.10.026	-	Chassis Carriage 1
0–11.10.032	-	Chassis Carriage 2
0–11.10.033	-	Longitudinal Beam
0–12.10.666	-	Sidewall Assembly
0–12.19.331	-	Floor Frame Compartment 2
0–12.19.333	-	Floor Frame Compartment 3
0–16.12.035	-	Abseil Attachment

Carriage - Pneumatics

1-1-.13.014	-	Pneumatikschema

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Client:

CAIRNGORM CHAIRLIFT COMPANY

Project:

CAIRNGORM FUNICULAR

Drawing:

SITE PLAN SHEET 1 OF 7
CHAINAGE 0 TO 340

Drawing No. CA150/2/01
REV. E

Drawn By [redacted]
Date 10/2/'99
Scale N.T.S

Revisions	Date	By
A Column positions added. Ref. Pt A. moved. Table amended.	20/04/'99	[redacted]
B Bottom station altered to architect's requirements. Table amended for new Ref. pt. S	30/06/'99	[redacted]
C Tower positions at Daylodge updated.	2/08/'99	[redacted]
D Towers 0–4 have been altered due to existing features. Table amended for revised Horizontal alignment.	15/10/'99	[redacted]
E Positions of fencing shown where distance from underside of beam to ground level is less than 2.3m.	19/11/'99	[redacted]

CONTRACT ISSUE
FOR CONSTRUCTION ☐
FOR INFORMATION ONLY ☐

REQUIRED FENCING POSITIONED 2m EITHER SIDE OF TOWER LOCATIONS

DAY LODGE

DIRTY WATER TANK TO BE EXCAVATED AND RELOCATED

FOR TRACK RE-ALIGNMENT REFER TO DRAWING CA150/1/17-18

Point	Eastings	Northings	Remarks
a	298980.089	806021.532	Origin of chainages
b	299236.778	805782.571	T.P.(Straight-Transition)
c	299245.024	805785.124	T.P.(Transition-Curve)
d	299307.644	805702.896	T.P.(Curve-Transition)
e	299312.630	805692.966	T.P.(Transition-Straight)
f	299041.230	805564.971	Centre of Curve
g	298414.831	805486.268	T.P.(Straight-Transition)
h	298419.817	805476.338	T.P.(Transition-Curve)
j	298443.428	805438.063	T.P.(Curve-Transition)
k	298450.064	805429.152	T.P.(Transition-Straight)
l	298686.231	805614.263	Centre of Curve
m	298500.362	805342.474	T.P.(Straight-Transition)
n	298510.584	805349.308	T.P.(Transition-Curve)
p	298574.731	805297.878	T.P.(Curve-Transition)
q	298588.805	805290.763	T.P.(Transition-Straight)
r	298665.093	805476.301	Centre of Curve
A	299001.490	806002.418	Ref pt for bottom station
B	299029.282	805997.631	
C	299092.503	805921.246	
D	299182.431	805832.123	
E	299204.255	805821.577	
F	299296.090	805723.231	
G	299304.408	805708.975	
H	299531.728	805327.258	Ref pt for middle station (lower)
J	299541.990	805318.676	Ref pt for middle station (upper)
K	299618.595	805277.659	Mid-point of line
L	299770.204	805208.657	
M	299793.578	805198.019	
N	299991.509	805107.934	
O	300048.265	805082.102	
P	300184.370	805020.156	
R	300247.708	804991.329	
S	300455.151	804896.915	Ref pt for top station (lower)
T	300470.619	804889.874	Ref pt for top station (upper)

Note: Northings = UK National Grid Northings - 11.79 m
Eastings = UK National Grid Eastings + 4.02 m

REDUCED FROM A1

Point	Eastings	Northings	Remarks
a	299980.059	806021.532	Origin of chainages
b	299236.778	805782.571	T.P. (Straight-Transition)
c	299245.024	805785.124	T.P. (Transition-Curve)
d	299587.644	805702.896	T.P. (Curve-Transition)
e	299612.630	805693.965	T.P. (Transition-Straight)
f	299641.330	805584.971	Centre of Curve
g	299414.831	805486.268	T.P. (Straight-Transition)
h	299419.817	805476.358	T.P. (Transition-Curve)
i	299443.428	805438.063	T.P. (Curve-Transition)
k	299450.064	805429.152	T.P. (Transition-Straight)
l	299686.231	805614.263	Centre of Curve
m	299300.362	805362.474	T.P. (Straight-Transition)
n	299310.584	805349.308	T.P. (Transition-Curve)
p	299574.731	805297.878	T.P. (Curve-Transition)
q	299589.805	805290.763	T.P. (Transition-Straight)
r	299645.093	805476.301	Centre of Curve
A	299601.490	806002.418	Ref pt for bottom station
B	299029.289	805997.631	
C	299092.503	805921.246	
D	299192.431	805832.125	
E	299204.255	805821.577	
F	299296.090	805723.231	
G	299304.408	805708.975	
H	299531.728	805327.258	Ref pt for middle station (lower)
J	299541.990	805318.676	Ref pt for middle station (upper)
K	299618.585	805277.659	Mid-point of line
L	299770.204	805208.657	
M	299791.578	805198.019	
N	299981.368	805107.834	
O	300048.265	805082.102	
P	300184.970	805020.156	
R	300247.708	804991.329	
S	300455.151	804896.915	Ref pt for top station (lower)
T	300470.619	804889.874	Ref pt for top station (upper)

Note: Northings = OS National Grid Northings - 11.78 m
Eastings = OS National Grid Eastings + 4.02 m

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Client

CAIRNGORM CHAIRLIFT COMPANY

Project

CAIRNGORM FUNICULAR

Drawing

SITE PLAN SHEET 2 OF 7
CHAINAGE 360 TO 700

Drawing No. CA150/2/02 — Drawn By [redacted]

REV. D — Date 10/2/'99

Scale N.T.S

Revisions	Date	By
A Column positions added. Table amended.	20/04/'99	[redacted]
B Table amended for new Ref pt. S	30/08/'99	[redacted]
C Table amended for revised Horizontal alignment.	18/10/'99	[redacted]
D Positions of fencing shown where clearance from underside of beam to ground level is less than 2.3m.	18/11/'99	[redacted]

CONTRACT ISSUE
FOR CONSTRUCTION ☐
FOR INFORMATION ONLY ☐

REQUIRED FENCING POSITIONED 2m EITHER SIDE OF TOWER LOCATIONS

FOR TRACK RE-ALIGNMENT REFER TO DRAWING CA150/1/17-18

BURN TO BE DIVERTED TEMPORARILY WHILE CONSTRUCTION IS IN PROGRESS

TO BE PROGRAMMED IN WITH THE REMOVAL OF THE KLARGESTER

REDUCED FROM A1

[redacted]

2 x EACH
TRACING
PLEASE
(D.I. SHEETS DONE)

Point	Eastings	Northings	Remarks
a	298980.059	806021.532	Origin of chainages
b	299236.778	805782.571	T.P.(Straight-Transition)
c	299245.024	805765.124	T.P.(Transition-Curve)
d	299267.644	805702.896	T.P.(Curve-Transition)
e	299312.630	805692.966	T.P.(Transition-Straight)
f	299041.230	805564.971	Centre of Curve
g	299414.831	805486.268	T.P.(Straight-Transition)
h	299419.817	805476.336	T.P.(Transition-Curve)
i	299443.428	805438.063	T.P.(Curve-Transition)
j	299450.064	805429.152	T.P.(Transition-Straight)
l	299686.231	805614.263	Centre of Curve
m	299500.362	805362.474	T.P.(Straight-Transition)
n	299510.584	805349.308	T.P.(Transition-Curve)
p	299574.731	805397.878	T.P.(Curve-Transition)
q	299589.805	805390.763	T.P.(Transition-Straight)
r	299665.093	805476.301	Centre of Curve
A	299001.490	806002.418	Ref pt for bottom station
B	299029.282	805997.631	
C	299092.503	805921.246	
D	299192.431	805832.123	
E	299204.255	805821.577	
F	299296.090	805723.231	
G	299304.408	805708.975	
H	299531.726	805327.250	Ref pt for middle station (lower)
J	299541.990	805318.676	Ref pt for middle station (upper)
K	299618.595	805277.659	Mid-point of line
L	299770.204	805208.657	
M	299793.578	805198.019	
N	299991.509	805107.934	
O	300048.265	805082.102	
P	300184.370	805020.156	
R	300247.708	804991.329	
S	300455.151	804896.915	Ref pt for top station (lower)
T	300470.619	804889.874	Ref pt for top station (upper)

Note: Northings = UK National Grid Northings - 11.79 m
Eastings = UK National Grid Eastings + 4.02 m

EXISTING SPRING – PROVIDE FIELD DRAINS AROUND TOWER BLOCK 41

REQUIRED FENCING POSITIONED 2m EITHER SIDE OF TOWER LOCATIONS

Passing loop with 3.8 m betwe section, also showing length between track-axes is great

Collision Point

Midpoint of Sp

Parallel section

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CAIRNGORM CHAIRLIFT COMPANY

Project

CAIRNGORM FUNICULAR

Drawing

SITE PLAN SHEET 3 OF 7
CHAINAGE 700 TO 1040

Drawing No. CA150/2/03 — Drawn By

REV. D — Date 10/2/'99 — Scale N.T.S

Revisions	Date	By
A Column positions added. Table amended.	20/04/'99	
B Shielding station altered to architect's requirements. Table amended for new Ref pt. S. Access track at Shielding altered.	30/06/'99	
C Tower 45 altered due to existing feature. Table amended for revised Horizontal alignment. Passing Loop in abeyance.	15/10/'99	
D Positions of fencing shown where distance from underside of beam to ground level is less than 2.3m.	19/11/'99	

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REDUCED FROM A1

Point	Eastings	Northings	Remarks
a	298980.859	806021.532	Origin of chainages
b	299236.778	805793.571	T.P. (Straight-Transition)
c	299245.024	805785.124	T.P. (Transition-Curve)
d	299307.644	805702.896	T.P. (Curve-Transition)
e	299319.630	805682.966	T.P. (Transition-Straight)
f	299041.230	805564.971	Centre of Curve
g	299414.831	805486.268	T.P. (Straight-Transition)
h	299419.817	805476.338	T.P. (Transition-Curve)
i	299443.428	805438.063	T.P. (Curve-Transition)
k	299450.064	805429.152	T.P. (Transition-Straight)
l	299686.231	805614.263	Centre of Curve
m	299300.362	805362.474	T.P. (Straight-Transition)
n	299310.584	805349.308	T.P. (Transition-Curve)
p	299374.731	805287.878	T.P. (Curve-Transition)
q	299389.805	805290.763	T.P. (Transition-Straight)
r	299665.083	805476.301	Centre of Curve
A	299001.490	806002.418	Ref pt for bottom station
B	299029.282	805997.631	
C	299052.503	805921.246	
D	299192.431	805833.123	
E	299304.255	805821.577	
F	299396.090	805725.231	
G	299304.408	805708.975	
H	299331.728	805327.356	Ref pt for middle station (lower)
J	299341.890	805318.676	Ref pt for middle station (upper)
K	299616.595	805277.699	Mid-point of line
L	299770.204	805206.637	
M	299783.578	805198.019	
N	299991.509	805107.934	
O	300048.265	805082.102	
P	300184.370	805020.156	
R	300247.708	804991.329	
S	300458.151	804898.815	Ref pt for top station (lower)
T	300470.619	804889.874	Ref pt for top station (upper)

Note: Northings = OK National Grid Northings - 11.79 m
Eastings = OK National Grid Eastings + 4.02 m

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Project

CAIRNGORM FUNICULAR

Drawing

SITE PLAN SHEET 4 OF 7
CHAINAGE 920 – 1260

Drawing No. CA150/2/04
REV.D

Drawn By

Date 10/2/99

Scale N.T.S

Revisions	Date	By
A Column positions added. Table amended.	20/04/98	
B Shielding station altered to architect's requirements. Table amended for new Ref pt. S. Access track at Shielding altered.	30/08/98	
C Table amended for new Horizontal alignment. Passing Loop in abeyance.	18/10/98	
D Positions of fencing shown where distance from underside of beam to ground level is less than 2.3m.	18/11/98	

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SHIELDING

Collision point

Midpoint of line

39.3827

60.6127

22

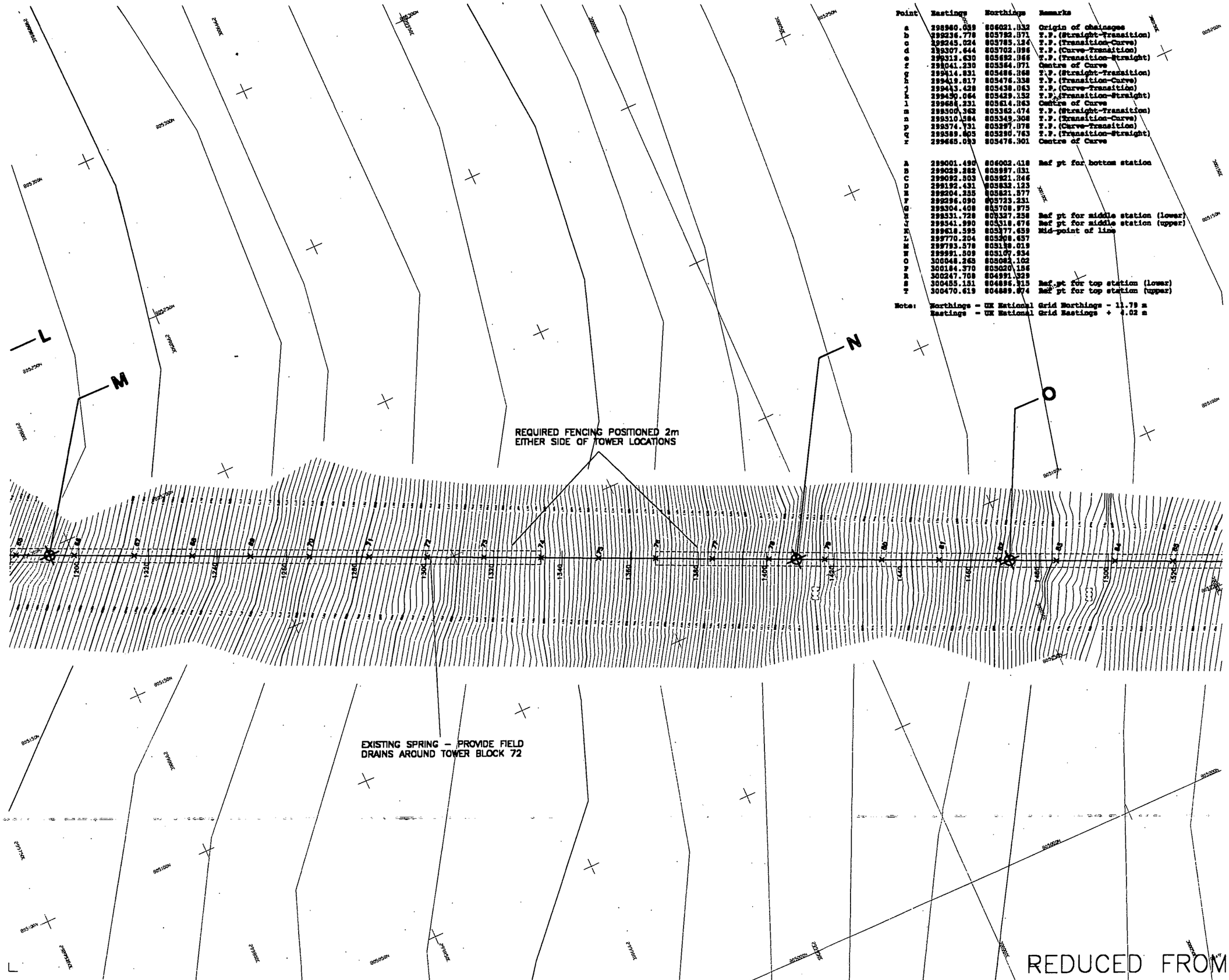
Parallel section

PASSING LOOP BETWEEN TOWERS 50 AND 59 – IN ABEYANCE

REQUIRED FENCING POSITIONED 2m EITHER SIDE OF TOWER LOCATIONS

Passing loop with 3.8 m between track axes in parallel section, also showing length for which distance between track axes is greater than 3.1 m.

REDUCED FROM A1



Point	Eastings	Northings	Remarks
a	298960.039	806021.832	Origin of chainages
b	299236.778	805792.871	T.P. (Straight-Transition)
c	299245.024	805785.134	T.P. (Transition-Curve)
d	299307.644	805702.098	T.P. (Curve-Transition)
e	299312.630	805692.065	T.P. (Transition-Straight)
f	299041.230	805564.971	Centre of Curve
g	299314.831	805486.768	T.P. (Straight-Transition)
h	299319.817	805476.938	T.P. (Transition-Curve)
j	299443.428	805438.063	T.P. (Curve-Transition)
k	299450.064	805429.152	T.P. (Transition-Straight)
l	299684.231	805614.863	Centre of Curve
m	299300.362	805362.474	T.P. (Straight-Transition)
n	299310.984	805349.308	T.P. (Transition-Curve)
p	299374.731	805297.078	T.P. (Curve-Transition)
q	299389.805	805290.763	T.P. (Transition-Straight)
r	299665.093	805476.301	Centre of Curve
A	299001.490	806002.418	Ref pt for bottom station
B	299029.282	805997.031	
C	299092.503	805921.846	
D	299192.431	805832.123	
E	299204.255	805821.877	
F	299296.090	805723.231	
G	299304.408	805708.975	
H	299331.728	805327.258	Ref pt for middle station (lower)
J	299341.990	805318.676	Ref pt for middle station (upper)
K	299618.395	805177.659	Mid-point of line
L	299770.204	805308.657	
M	299793.578	805138.019	
N	299891.589	805107.834	
O	300048.265	805023.102	
P	300184.570	805020.156	
R	300247.708	804991.329	
S	300455.151	804896.915	Ref.pt for top station (lower)
T	300470.619	804889.874	Ref pt for top station (upper)

Note: Northings = OS National Grid Northings - 11.79 m
Eastings = OS National Grid Eastings + 4.02 m

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CAIRNGORM CHAIRLIFT COMPANY

Project:

CAIRNGORM FUNICULAR

Drawing:

SITE PLAN SHEET 5 OF 7
CHAINAGE 1220 – 1560

Drawing No. CA150/2/05
REV. D

Drawn By

Date 10/2/'99

Scale N.T.S

Revisions	Date	By
A Column positions added. Table amended.	20/04/'99	
B Table amended for new Ref pt. S	30/08/'99	
C Table amended for revised Horizontal alignment.	15/10/'99	
D Positions of fencing shown where distance from underside of beam to ground level is less than 2.3m.	18/11/'99	

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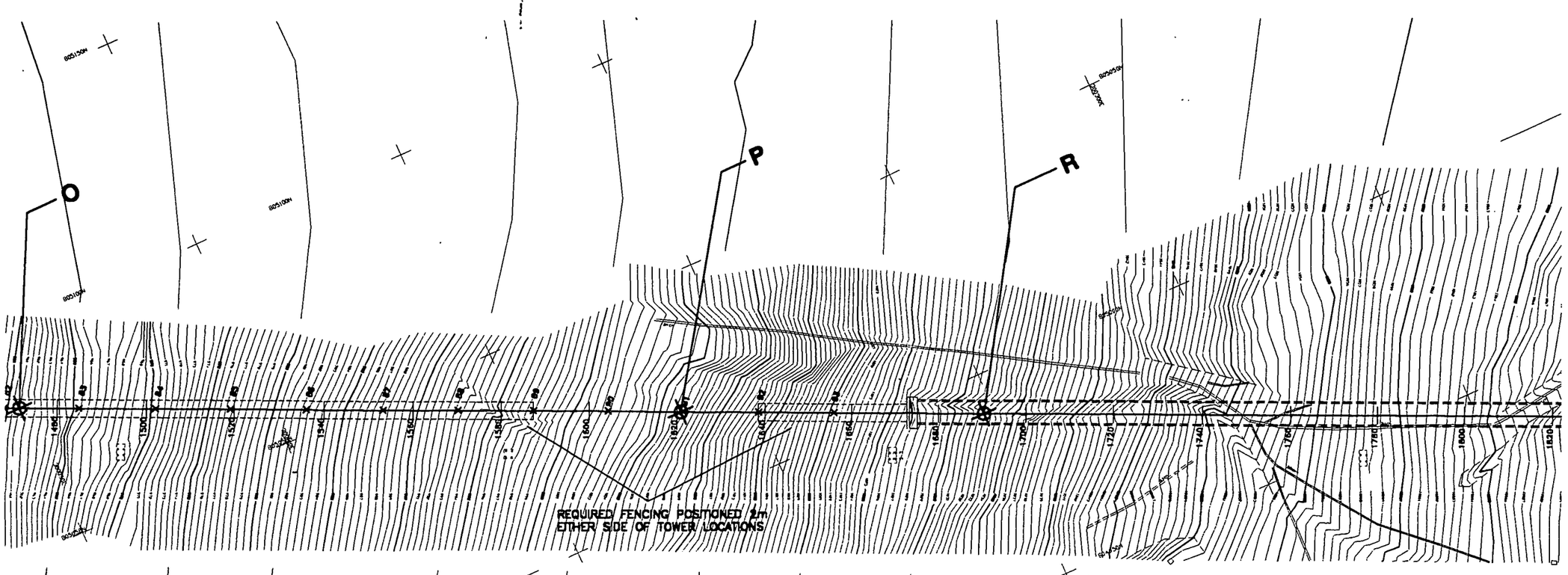

Point	Eastings	Northings	Remarks
a	298880.089	806021.532	Origin of chainages
b	299236.778	805792.571	T.P. (Straight-Transition)
c	299245.024	805785.124	T.P. (Transition-Curve)
d	299307.644	805702.896	T.P. (Curve-Transition)
e	299312.630	805692.966	T.P. (Transition-Straight)
f	299041.230	805564.971	Centre of Curve
g	299414.831	805486.268	T.P. (Straight-Transition)
h	299419.817	805476.338	T.P. (Transition-Curve)
j	299443.428	805438.063	T.P. (Curve-Transition)
k	299450.064	805429.152	T.P. (Transition-Straight)
l	299686.231	805514.263	Centre of Curve
m	299500.382	805362.474	T.P. (Straight-Transition)
n	299510.564	805349.308	T.P. (Transition-Curve)
p	299574.731	805297.878	T.P. (Curve-Transition)
q	299589.805	805290.763	T.P. (Transition-Straight)
r	299665.083	805476.301	Centre of Curve
A	299001.490	806002.418	Ref pt for bottom station
B	299029.282	805997.631	
C	299082.503	805921.246	
D	299182.431	805852.129	
E	299204.255	805821.577	
F	299296.090	805723.231	
G	299304.408	805708.975	
H	299531.728	805327.250	Ref pt for middle station (lower)
J	299541.990	805318.676	Ref pt for middle station (upper)
K	299618.595	805277.659	Mid-point of line
L	299770.204	805208.657	
M	299793.578	805198.019	
N	299991.509	805107.934	
O	300048.265	805082.102	
P	300184.370	805020.186	
R	300247.708	804991.329	
S	300455.151	804894.815	Ref pt for top station (lower)
T	300470.619	804889.874	Ref pt for top station (upper)

Note: Northings = UK National Grid Northings - 11.79 m
Eastings = UK National Grid Eastings + 4.02 m

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Project

CAIRNGORM FUNICULAR

Drawing

SITE PLAN SHEET 6 OF 7
CHAINAGE 1460 – 1800

Drawing No. CA150/2/06 REV. D
Drawn By [redacted]
Date 10/2/'99
Scale N.T.S

Revisions	Date	By
A Column positions added. Table amended. Tunnel added.	20/04/'99	[redacted]
B Table amended for new Ref pt. S. Entrance to tunnel updated.	30/06/'99	
C Table amended for revised Horizontal alignment.	16/10/'99	
D Positions of fencing shown where distance from underside of beam to ground level is less than 2.3m.	18/11/'99	

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Point	Eastings	Northings	Remarks
A	298980.059	806021.532	Origin of chainages
B	299236.778	805792.571	T.P. (Straight-Transition)
c	299245.024	805785.124	T.P. (Transition-Curve)
d	299307.644	805702.896	T.P. (Curve-Transition)
e	299312.630	805692.966	T.P. (Transition-Straight)
f	299041.230	805564.971	Centre of Curve
g	299414.831	805486.268	T.P. (Straight-Transition)
h	299419.817	805476.338	T.P. (Transition-Curve)
i	299443.428	805438.063	T.P. (Curve-Transition)
k	299450.064	805429.152	T.P. (Transition-Straight)
l	299686.331	805614.263	Centre of Curve
m	299500.362	805362.474	T.P. (Straight-Transition)
n	299510.584	805349.308	T.P. (Transition-Curve)
p	299574.731	805297.878	T.P. (Curve-Transition)
q	299589.805	805290.763	T.P. (Transition-Straight)
r	299665.093	805476.301	Centre of Curve
A	299001.490	806002.418	Ref pt for bottom station
B	299029.382	805997.691	
C	299082.503	805921.246	
D	299182.431	805832.123	
E	299204.358	805821.077	
F	299294.090	805723.231	
G	299304.408	805708.975	
H	299331.728	805327.258	Ref pt for middle station (lower)
J	299341.990	805318.676	Ref pt for middle station (upper)
K	299618.595	805277.685	Mid-point of line
L	299770.204	805268.657	
M	299793.578	805198.019	
N	299891.509	805107.834	
O	300048.265	805082.102	
P	300184.378	805020.156	
R	300247.708	804991.329	
S	300453.181	804896.915	Ref pt for top station (lower)
T	300470.619	804889.874	Ref pt for top station (upper)

Note: Northings = UK National Grid Northings - 11.79 m
Eastings = UK National Grid Eastings + 4.03 m

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Project

CAIRNGORM FUNICULAR

Drawing

SITE PLAN SHEET 7 OF 7
CHAINAGE 1660 – 1920

Drawing No. CA150/2/07 REV. D
Drawn By
Date 10/2/'99
Scale N.T.S

Revisions

	Date	By
A Datum positions added. Table amended. Tunnel added.	20/04/'99	
B Ptarmigan altered to architect's requirements & new Ref pt. S established. Table amended for new Ref pt. S. Entrances to tunnel updated.	30/06/'99	
C Table amended for revised Horizontal alignment.	15/10/'99	
D Positions of fencing shown where distance from underside of beam to ground level is less than 2.3m.	19/11/'99	

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REQUIRED FENCING POSITIONED 2m EITHER SIDE OF TOWER LOCATIONS

PTARMIGAN

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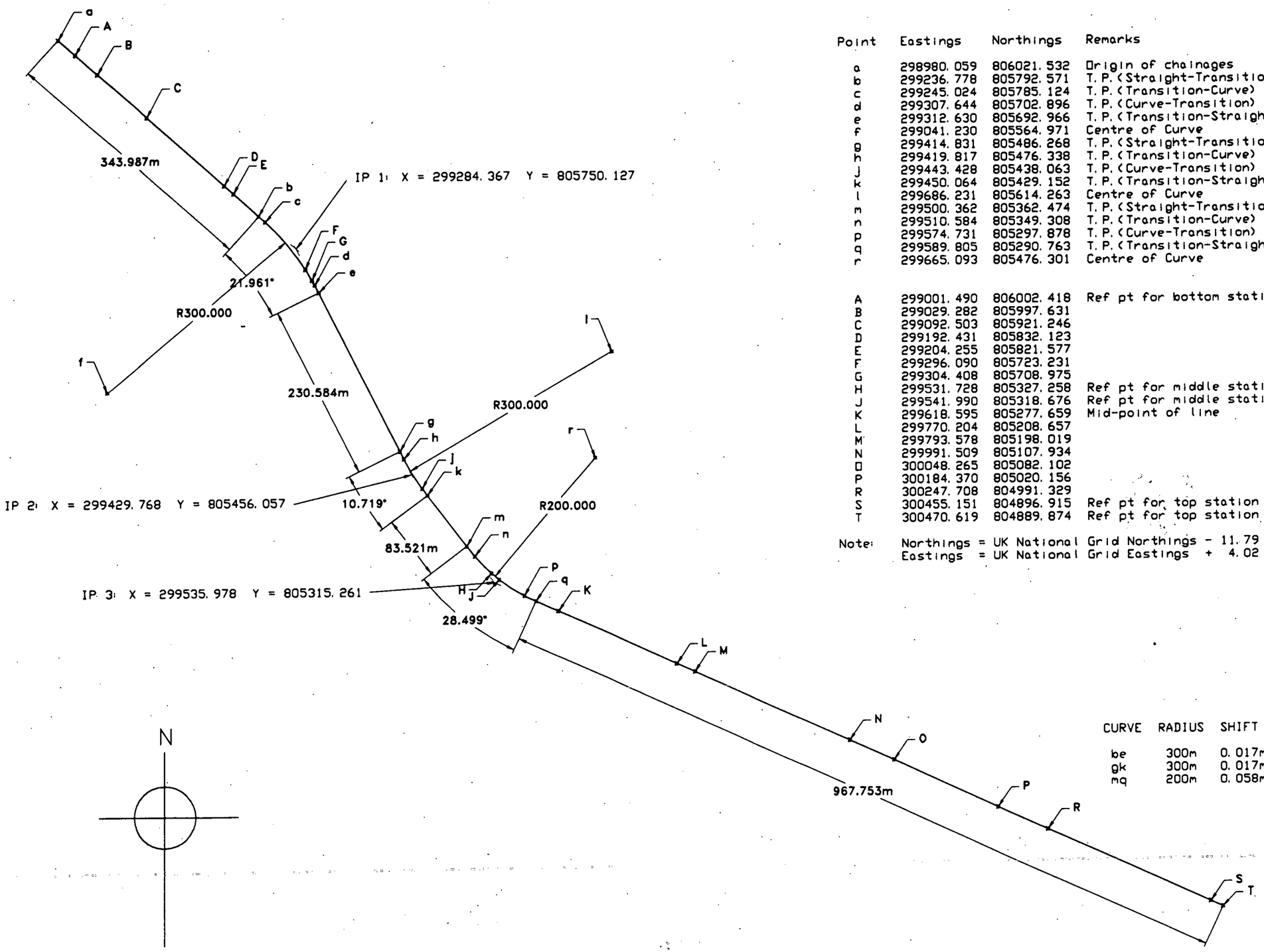

Point	Eastings	Northings	Remarks
a	298980.059	806021.532	Origin of chainages
b	299236.778	805792.571	T.P.(Straight-Transition)
c	299245.024	805785.124	T.P.(Transition-Curve)
d	299307.644	805702.896	T.P.(Curve-Transition)
e	299312.630	805692.966	T.P.(Transition-Straight)
f	299041.230	805564.971	Centre of Curve
g	299414.831	805486.268	T.P.(Straight-Transition)
h	299419.817	805476.338	T.P.(Transition-Curve)
j	299443.428	805438.063	T.P.(Curve-Transition)
k	299450.064	805429.152	T.P.(Transition-Straight)
l	299686.231	805614.263	Centre of Curve
m	299500.362	805362.474	T.P.(Straight-Transition)
n	299510.584	805349.308	T.P.(Transition-Curve)
p	299574.731	805297.878	T.P.(Curve-Transition)
q	299589.805	805290.763	T.P.(Transition-Straight)
r	299665.093	805476.301	Centre of Curve
A	299001.490	806002.418	Ref pt for bottom station
B	299029.282	805997.631	
C	299092.503	805921.246	
D	299192.431	805832.123	
E	299204.255	805821.577	
F	299296.090	805723.231	
G	299304.408	805708.975	
H	299531.728	805327.258	Ref pt for middle station (lower)
J	299541.990	805318.676	Ref pt for middle station (upper)
K	299618.595	805277.659	Mid-point of line
L	299770.204	805208.657	
M	299793.578	805198.019	
N	299991.509	805107.934	
O	300048.265	805082.102	
P	300184.370	805020.156	
R	300247.708	804991.329	
S	300455.151	804896.915	Ref pt for top station (lower)
T	300470.619	804889.874	Ref pt for top station (upper)

Note: Northings = UK National Grid Northings - 11.79 m
Eastings = UK National Grid Eastings + 4.02 m

CURVE	RADIUS	SHIFT	TRANSITION CURVE LENGTH	TANGENT LENGTH
be	300m	0.017m	bc, de 11.111m	63.767m
gk	300m	0.017m	gh, jk 11.111m	33.702m
mq	200m	0.058m	mn, pq 16.667m	59.140m

DEFINITION OF LINE - PLAN

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Client
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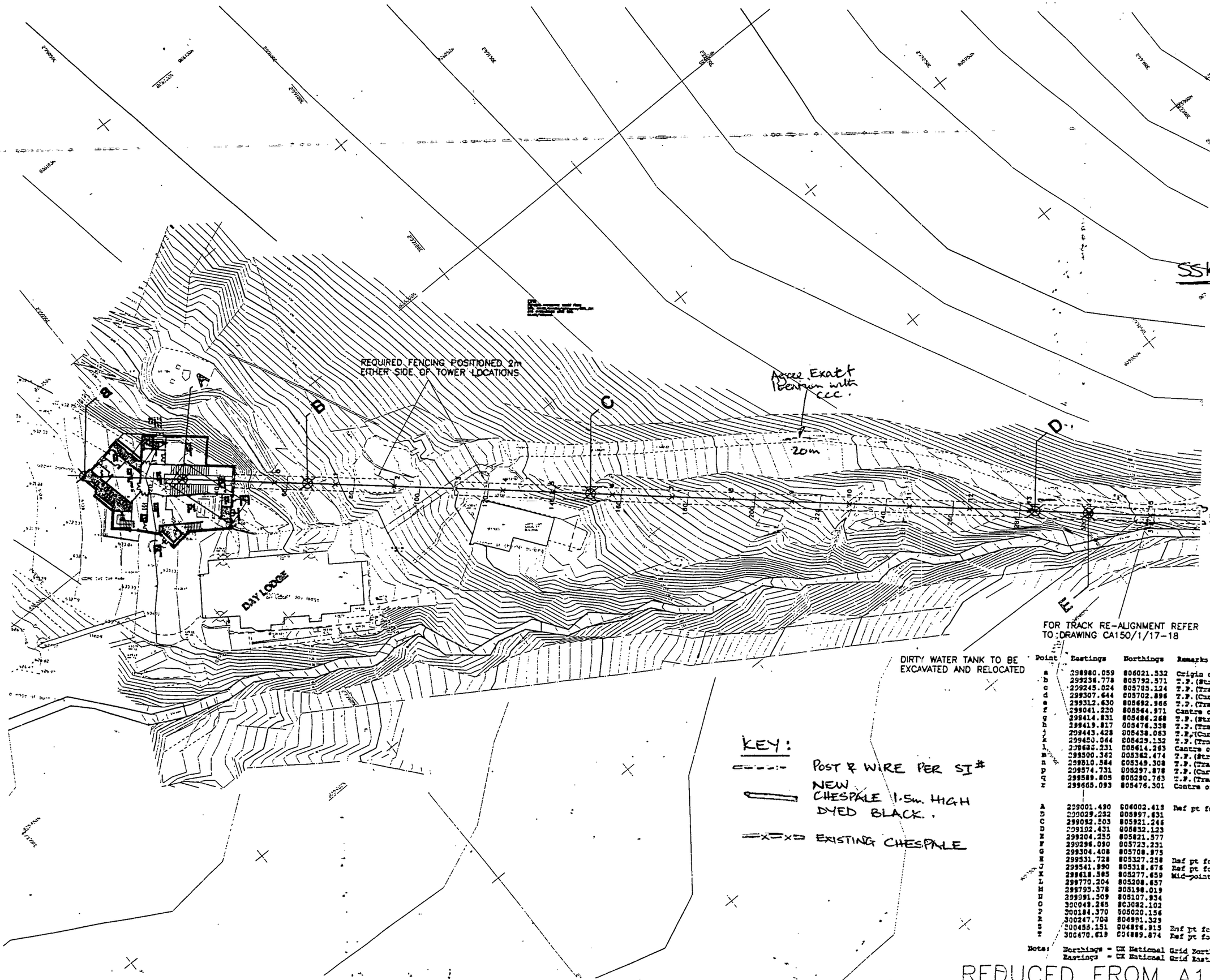
Project
CAIRNGROM FUNICULAR

Drawing
FUNICULAR- HORIZONTAL GEOMETRY

Drawing No. CA150/2/08 — Drawn By
REV. C — Date 01/06/'99 — Scale 1:2500

Revisions	Date	By
A New Ref pt. S established.	30/06/'99	
B Horizontal geometry amended. 175m radius curve now 200m radius Transition curves added.	24/09/'99	
C Intersection points added. Transition curve text amendment.	26/11/'99	

REDUCED FROM A1



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Client

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Project

CAIRNGORM FUNICULAR

FENCING

Drawing

SITE PLAN SHEET 1 OF 7
CHAINAGE 0 TO 340

SSK

Drawing No. CA150/2/01
REV. E

Drawn By [redacted]
Date 10/2/'99
Scale N.T.S

Revisions	Date	By
A	20/04/'99	[redacted]
Column positions added. Ref. Pt A moved. Table amended.		
B	30/06/'99	
Bottom station altered to architect's requirements. Table amended for new Ref. pt. S		
C	2/09/'99	
Tower positions at Dayloge updated.		
D	15/10/'99	
Towers 0-4 have been altered due t existing features. Table amended for revised Horizontal alignment.		
E	19/11/'99	
Positions of fencing shown where distance from underside of beam to ground level is less than 2.5m.		

CONTRACT ISSUE
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FOR INFORMATION ONLY ☐

Point	Eastings	Northings	Remarks
a	298980.059	806021.532	Origin of chainages
b	299236.778	805792.571	T.P. (Straight-Transition)
c	299245.024	805785.124	T.P. (Transition-Curve)
d	299307.644	805702.896	T.P. (Curve-Transition)
e	299312.630	805692.966	T.P. (Transition-Straight)
f	299041.220	805564.971	Centre of Curve
g	299414.831	805486.268	T.P. (Straight-Transition)
h	299419.817	805476.338	T.P. (Transition-Curve)
j	299443.428	805438.083	T.P. (Curve-Transition)
k	299450.044	805429.152	T.P. (Transition-Straight)
l	299682.231	805614.263	Centre of Curve
m	299500.362	805362.474	T.P. (Straight-Transition)
n	299510.584	805349.308	T.P. (Transition-Curve)
p	299574.731	805297.878	T.P. (Curve-Transition)
q	299589.805	805290.763	T.P. (Transition-Straight)
r	299665.093	805476.301	Centre of Curve
A	299001.490	806002.419	Ref pt for bottom station
B	299029.252	805997.631	
C	299092.503	805921.245	
D	299102.431	805832.123	
E	299204.255	805821.577	
F	299296.090	805723.231	
G	299304.408	805708.975	
H	299531.728	805327.258	Ref pt for middle station (lower)
J	299541.890	805318.676	Ref pt for middle station (upper)
K	299618.585	805277.659	Mid-point of line
L	299770.204	805208.657	
M	299793.578	805198.013	
N	299991.509	805107.834	
O	300048.265	805082.102	
P	300184.370	805020.156	
R	300247.708	804991.329	
S	300456.151	804896.915	Ref pt for top station (lower)
T	300470.619	804889.874	Ref pt for top station (upper)

Note: Northings = UK National Grid Northings - 11.79 m
Eastings = UK National Grid Eastings + 4.92 m

REDUCED FROM A1

Point	Eastings	Northings	Remarks
a	298980.039	806021.532	Origin of chainages
b	299236.778	805792.571	T.P. (Straight-Transition)
c	299245.024	805785.124	T.P. (Transition-Curve)
d	299502.644	805702.896	T.P. (Curve-Transition)
e	299312.630	805682.946	T.P. (Transition-Straight)
f	299041.230	805564.871	Centre of Curve
g	299414.831	805486.268	T.P. (Straight-Transition)
h	299419.817	805476.338	T.P. (Transition-Curve)
j	299443.428	805438.063	T.P. (Curve-Transition)
k	299450.064	805429.152	T.P. (Transition-Straight)
l	299686.231	805614.263	Centre of Curve
m	299500.362	805362.474	T.P. (Straight-Transition)
n	299510.584	805349.308	T.P. (Transition-Curve)
p	299574.731	805297.878	T.P. (Curve-Transition)
q	299589.805	805290.763	T.P. (Transition-Straight)
r	299665.093	805476.301	Centre of Curve
A	299401.490	806002.418	Ref pt for bottom station
B	299029.288	805897.631	
C	299092.503	805921.246	
D	299192.431	805832.125	
E	299204.255	805821.577	
F	299296.090	805723.231	
G	299304.408	805708.975	
H	299531.728	805327.258	Ref pt for middle station (lower)
J	299541.990	805318.676	Ref pt for middle station (upper)
K	299618.595	805277.659	Mid-point of line
L	299770.204	805208.657	
M	299793.578	805198.019	
N	299991.368	805107.934	
O	300048.265	805082.102	
P	300184.370	805020.156	
R	300247.708	804991.329	
S	300455.151	804896.915	Ref pt for top station (lower)
T	300470.819	804889.874	Ref pt for top station (upper)

Note: Northings = UK National Grid Northings - 11.79 m
Eastings = UK National Grid Eastings + 4.02 m

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CAIRNGORM CHAIRLIFT COMPANY

Project

CAIRNGORM FUNICULAR
FENCING

Drawing

SITE PLAN SHEET 2 OF 7
CHAINAGE 360 TO 700

Drawing No. CA150/2/02 — Drawn By SSK
REV. D — Date 10/2/'99 — Scale N.T.S

Revisions	Date	By
A Column positions added. Table amended.	20/04/'99	
B Table amended for new Ref pt. 5	30/08/'99	
C Table amended for revised Horizontal alignment.	18/10/'99	
D Positions of fencing shown where distance from underside of boom to ground level is less than 2.3m.	19/11/'99	

CONTRACT ISSUE
FOR CONSTRUCTION ☐
FOR INFORMATION ONLY ☐

REQUIRED FENCING POSITIONED 2m EITHER SIDE OF TOWER LOCATIONS

FOR TRACK RE-ALIGNMENT REFER TO DRAWING CA150/1/17-18

BURN TO BE DIVERTED TEMPORARILY WHILE CONSTRUCTION IS IN PROGRESS

TO BE PROGRAMMED IN WITH THE REMOVAL OF THE KLARGESTER

REDUCED FROM A1

Point	Eastings	Northings	Remarks
a	298880.059	806021.532	Origin of chainages
b	299236.778	805792.571	T.P.(Straight-Transition)
c	299245.024	805785.124	T.P.(Transition-Curve)
d	299307.644	805702.896	T.P.(Curve-Transition)
e	299312.630	805692.966	T.P.(Transition-Straight)
f	299041.230	805564.971	Centre of Curve
g	299414.831	805486.268	T.P.(Straight-Transition)
h	299419.817	805476.338	T.P.(Transition-Curve)
i	299443.428	805438.063	T.P.(Curve-Transition)
k	299450.044	805429.152	T.P.(Transition-Straight)
l	299686.231	805216.243	Centre of Curve
m	299500.362	805362.474	T.P.(Straight-Transition)
n	299510.584	805349.308	T.P.(Transition-Curve)
p	299574.731	805297.878	T.P.(Curve-Transition)
q	299589.805	805290.763	T.P.(Transition-Straight)
r	299665.093	805476.301	Centre of Curve
A	299001.490	806002.418	Ref pt for bottom station
B	299029.282	805897.431	
C	299082.503	805821.246	
D	299182.431	805832.123	
E	299204.255	805821.577	
F	299286.090	805733.251	
G	299304.408	805708.975	
H	299531.728	805327.258	Ref pt for middle station (lower)
J	299541.990	805318.676	Ref pt for middle station (upper)
K	299610.585	805277.659	Mid-point of line
L	299770.204	805208.657	
M	299783.578	805198.019	
N	299991.509	805107.934	
O	300048.265	805082.102	
P	300184.370	805020.156	
R	300247.708	804991.329	
S	300455.151	804896.915	Ref pt for top station (lower)
T	300470.619	804889.874	Ref pt for top station (upper)

Note: Northings = UK National Grid Northings - 11.79 m
Eastings = UK National Grid Eastings + 4.02 m

EXISTING SPRING – PROVIDE FIELD DRAINS AROUND TOWER BLOCK 41

REQUIRED FENCING POSITIONED 2m EITHER SIDE OF TOWER LOCATIONS

Passing loop with 3.8 m betwe section, also showing length between track axes is grea

Collision point

Midpoint of li

Parallel section

Shielding

REDUCED FROM A1

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Drawing
SITE PLAN SHEET 3 OF 7
CHAINAGE 700 TO 1040

Drawing No. CA150/2/03 REV. D
Drawn By SSK
Date 10/2/'99
Scale N.T.S

Revisions	Date	By
A Column positions added. Table amended.	20/04/'99	
B Shielding station altered to architect's requirements. Table amended for new Ref pt. 5. Access track at Shielding altered.	30/06/'99	
C Tower 45 altered due to existing feature. Table amended for revised Horizontal alignment. Passing Loop in abeyance.	15/10/'99	
D Positions of fencing shown where distance from underside of boom to ground level is less than 2.3m.	18/11/'99	

CONTRACT ISSUE
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Point	Eastings	Northings	Remarks
a	298980.059	806021.532	Origin of chainages
b	299236.778	805792.571	T.P.(Straight-Transition)
c	299245.024	805785.124	T.P.(Transition-Curve)
d	299307.644	805702.896	T.P.(Curve-Transition)
e	299312.630	805692.966	T.P.(Transition-Straight)
f	299041.230	805564.971	Centre of Curve
g	299414.831	805486.268	T.P.(Straight-Transition)
h	299419.017	805476.338	T.P.(Transition-Curve)
j	299443.428	805438.063	T.P.(Curve-Transition)
k	299450.064	805429.152	T.P.(Transition-Straight)
l	299686.231	805414.263	Centre of Curve
m	299500.362	805362.474	T.P.(Straight-Transition)
n	299510.584	805349.308	T.P.(Transition-Curve)
p	299574.731	805297.878	T.P.(Curve-Transition)
q	299589.805	805290.763	T.P.(Transition-Straight)
r	299663.093	805476.301	Centre of Curve
A	299001.490	806002.418	Ref pt for bottom station
B	299020.282	805997.631	
C	299092.503	805921.246	
D	299182.431	805832.123	
E	299204.255	805821.377	
F	299298.080	805723.231	
G	299304.408	805708.975	
H	299531.728	805327.258	Ref pt for middle station (lower)
J	299541.880	805318.678	Ref pt for middle station (upper)
K	299618.595	805277.659	Mid-point of line
L	299770.204	805208.657	
M	299783.578	805198.019	
N	299991.509	805107.934	
O	300048.265	805082.102	
P	300184.370	805020.156	
R	300247.708	804991.329	
S	300455.151	804896.915	Ref pt for top station (lower)
T	300470.619	804889.874	Ref pt for top station (upper)

Note: Northings - OK National Grid Northings - 11.79 m
Eastings - OK National Grid Eastings + 4.02 m

Relocate 3 No. Large Blocks as indicated on site.

EXACT POSITION - AGREE WITH C.C.C.

Collision point

Midpoint of line

99.3927

60.6127

22

Parallel section

PASSING LOOP BETWEEN TOWERS 50 AND 58 — IN ABEYANCE

REQUIRED FENCING POSITIONED 2m EITHER SIDE OF TOWER LOCATIONS

Passing loop with 3.8 m between track axes in parallel section, also showing length for which distance between track axes is greater than 3.1 m.

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Project

CAIRNGORM FUNICULAR
FENCING

Drawing

SITE PLAN SHEET 4 OF 7
CHAINAGE 920 – 1260

Drawing No. CA150/2/04 REV.D

Drawn By [redacted]

Date 10/2/'99

Scale N.T.S

Revisions	Date	By
A Column positions added. Table amended.	20/04/'99	[redacted]
B Shielding station altered to architect's requirements. Table amended for new Ref pt. S. Access track at Shielding altered.	30/09/'99	
C Table amended for new Horizontal alignment. Passing Loop in abeyance.	15/10/'99	
D Positions of fencing shown where clearance from underside of beam to ground level is less than 2.3m.	19/11/'99	

CONTRACT ISSUE
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REDUCED FROM A1

Point	Eastings	Northings	Remarks
a	298940.039	806021.532	Origin of chainages
b	299236.770	805792.571	T.P. (Straight-Transition)
c	299245.024	805785.124	T.P. (Transition-Curve)
d	299307.644	805702.896	T.P. (Curve-Transition)
e	299312.630	805692.966	T.P. (Transition-Straight)
f	299041.230	805564.971	Centre of Curve
g	299414.831	805486.268	T.P. (Straight-Transition)
h	299419.817	805476.338	T.P. (Transition-Curve)
j	299483.428	805438.063	T.P. (Curve-Transition)
k	299490.064	805429.152	T.P. (Transition-Straight)
l	299606.231	805614.263	Centre of Curve
m	299500.362	805382.474	T.P. (Straight-Transition)
n	299510.584	805349.308	T.P. (Transition-Curve)
p	299574.731	805297.878	T.P. (Curve-Transition)
q	299509.805	805290.763	T.P. (Transition-Straight)
r	299665.093	805476.301	Centre of Curve
A	299001.490	806002.418	Ref pt for bottom station
B	299029.282	805997.631	
C	299092.303	805921.246	
D	299192.431	805832.123	
E	299204.255	805821.577	
F	299296.090	805723.231	
G	299304.408	805708.975	
H	299531.728	805327.258	Ref pt for middle station (lower)
J	299541.990	805318.676	Ref pt for middle station (upper)
K	299616.595	805277.659	Mid-point of line
L	299770.204	805208.657	
M	299793.578	805198.019	
N	299991.509	805107.934	
O	300048.265	805082.102	
P	300184.370	805020.156	
R	300247.708	804991.329	
S	300455.151	804896.915	Ref.pt for top station (lower)
T	300470.619	804889.874	Ref pt for top station (upper)

Note: Northings - OS National Grid Northings - 11.79 m
Eastings - OS National Grid Eastings + 4.02 m

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FENCING

Drawing
SITE PLAN SHEET 5 OF 7
CHAINAGE 1220 – 1560

Drawing No. CA150/2/05 — Drawn By SSK
REV. D — Date 10/2/'99 — Scale N.T.S

Revisions	Date	By
A Column positions added. Table amended.	20/04/'99	
B Table amended for new Ref pt. S	30/08/'99	
C Table amended for revised Horizontal alignment.	15/10/'99	
D Positions of fencing shown where clearance from underside of beam to ground level is less than 2.3m.	19/11/'99	

CONTRACT ISSUE
FOR CONSTRUCTION ☐
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15/20m TAPER

REQUIRED FENCING POSITIONED 2m EITHER SIDE OF TOWER LOCATIONS

FILL 2m GAP

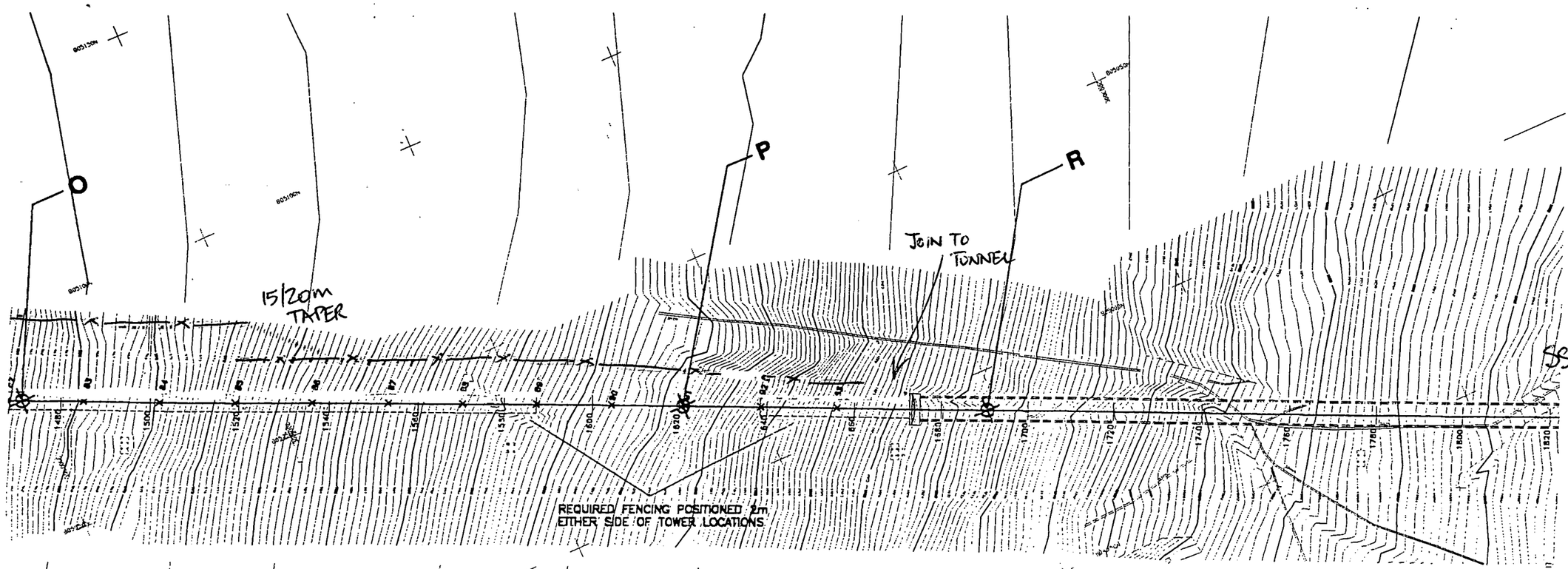
FILL 2m GAP

"ELEPHANT FENCE"

15/20m TAPER

EXISTING SPRING – PROVIDE FIELD DRAINS AROUND TOWER BLOCK 72

REDUCED FROM A1



Point	Eastings	Northings	Remarks
a	298980.039	806021.532	Origin of chainage
b	299236.778	805782.571	T.P. (Straight-Transition)
c	299245.024	805785.124	T.P. (Transition-Curve)
d	299307.644	805702.896	T.P. (Curve-Transition)
e	299312.630	805682.966	T.P. (Transition-Straight)
f	299041.230	805564.971	Centre of Curve
g	299414.831	805486.268	T.P. (Straight-Transition)
h	299419.817	805476.338	T.P. (Transition-Curve)
i	299443.428	805438.063	T.P. (Curve-Transition)
k	299450.064	805429.152	T.P. (Transition-Straight)
l	299686.231	805614.263	Centre of Curve
m	299500.362	805362.474	T.P. (Straight-Transition)
n	299510.584	805349.308	T.P. (Transition-Curve)
p	299574.731	805297.878	T.P. (Curve-Transition)
q	299589.805	805290.763	T.P. (Transition-Straight)
r	299665.093	805476.301	Centre of Curve
A	299001.490	806002.618	Ref pt for bottom station
B	299029.282	805997.631	
C	299092.500	805921.246	
D	299182.431	805832.129	
E	299204.295	805821.577	
F	299296.090	805723.251	
G	299304.408	805708.975	
H	299531.728	805327.358	Ref pt for middle station (lower)
J	299541.980	805318.676	Ref pt for middle station (upper)
K	299618.595	805277.659	Mid-point of line
L	299770.204	805208.657	
M	299793.578	805198.019	
N	299991.509	805107.934	
O	300048.265	805082.102	
P	300184.370	805020.156	
R	300247.708	804991.329	
S	300455.151	804896.915	Ref pt for top station (lower)
T	300470.619	804889.874	Ref pt for top station (upper)

Notes: Northings = UK National Grid Northings - 11.79 m
Eastings = UK National Grid Eastings + 4.02 m

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Project

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FENCING

Drawing

SITE PLAN SHEET 6 OF 7
CHAINAGE 1460 – 1800

Drawing No. CA150/2/06 REV. D
Drawn By [redacted]
Date 10/2/'99
Scale N.T.S

Revisions	Date	By
A Column positions added. Table amended. Tunnel added.	20/04/'99	[redacted]
B Table amended for new Ref pt. 5. Entrance to tunnel updated.	30/06/'99	
C Table amended for revised Horizontal alignment.	15/10/'99	
D Positions of fencing shown where clearance from underside of boom to ground level is less than 2.3m.	18/11/'99	

CONTRACT ISSUE
FOR CONSTRUCTION ☐
FOR INFORMATION ONLY ☐

REDUCED FROM A1

REDUCED FROM A1

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Project:
CAIRNGORM FUNICULAR

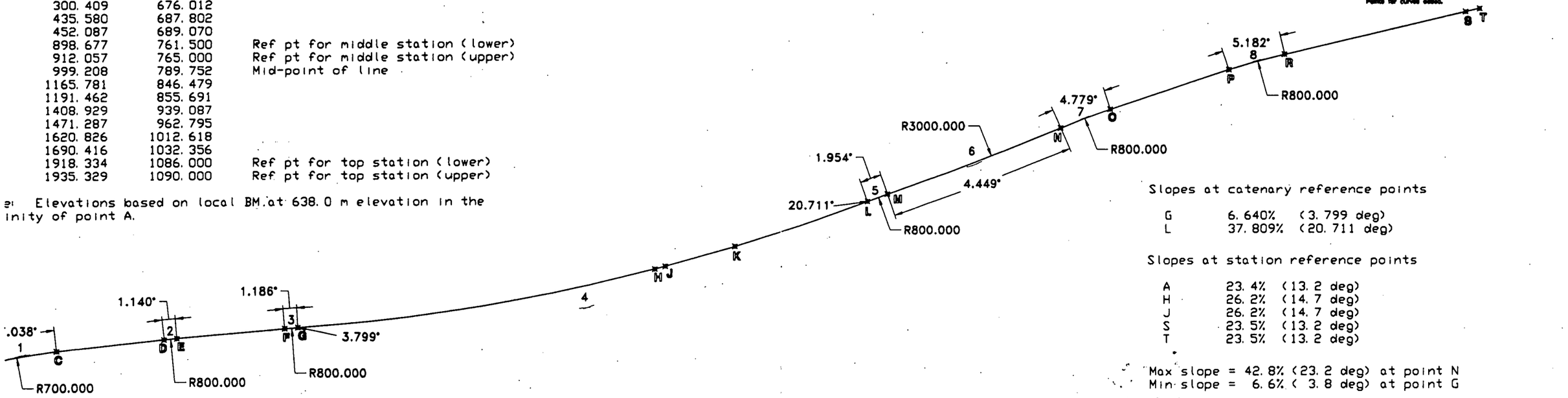
Drawing:
FUNICULAR–
VERTICAL GEOMETRY

Drawing No. CA150/2/18 — Drawn By [redacted]
REV. B — Date 01/06/'99 — Scale 1:2500

Revisions — Date — By
A — 23/9/99 — [redacted]
VERTICAL ALIGNMENT AMENDED.
B — 26/11/99
Start/End angles of catenary added.
Chainage and Levels of intersection Points for curves added.

nt	Chainage	Elevation	Remarks
	28.716	637.000	Ref pt for bottom station
	65.956	645.709	
	150.668	660.103	
	284.566	674.471	
	300.409	676.012	
	435.580	687.802	
	452.087	689.070	
	898.677	761.500	Ref pt for middle station (lower)
	912.057	765.000	Ref pt for middle station (upper)
	999.208	789.752	Mid-point of line
	1165.781	846.479	
	1191.462	855.691	
	1408.929	939.087	
	1471.287	962.795	
	1620.826	1012.618	
	1690.416	1032.356	
	1918.334	1086.000	Ref pt for top station (lower)
	1935.329	1090.000	Ref pt for top station (upper)

e: Elevations based on local BM at 638.0 m elevation in the inity of point A.



Slopes at catenary reference points

G	6.640%	(3.799 deg)
L	37.809%	(20.711 deg)

Slopes at station reference points

A	23.4%	(13.2 deg)
H	26.2%	(14.7 deg)
J	26.2%	(14.7 deg)
S	23.5%	(13.2 deg)
T	23.5%	(13.2 deg)

Max slope = 42.8% (23.2 deg) at point N
Min slope = 6.6% (3.8 deg) at point G

Centres of arcs

Segment	Chainage	Elevation
BC	225.354	-35.901
DE	369.921	-120.962
FG	505.093	-109.172
LM	1448.702	98.177
MN	226.813	3696.369
NO	1724.160	203.812
PR	1873.699	253.635

egment	Type	Curved length	Cumulative length
AB	Straight	38.245	38.245
BC	Arc	85.980	124.225
CD	Straight	134.667	258.892
DE	Arc	15.918	274.810
EF	Straight	135.684	410.494
FG	Arc	16.556	427.050
GL	Catenary	733.521	1160.571
LM	Arc	27.284	1187.855
MN	Arc	232.968	1420.823
NO	Arc	66.732	1487.555
OP	Straight	157.620	1645.175
PR	Arc	72.360	1717.535
RT	Straight	251.605	1969.140

	CHAINAGE	LEVEL
I.P. 1 =	107.870	655.511
I.P. 2 =	292.480	675.321
I.P. 3 =	443.828	688.521
I.P. 4 =	812.799	713.022
I.P. 5 =	1178.543	851.304
I.P. 6 =	1301.815	893.165
I.P. 7 =	1439.613	952.243
I.P. 8 =	1655.174	1024.062

Catenaries

Defining equation: $y = yc + (\cosh(a(x - xc)) - 1)/a$

Segment	xc	yc	a	Minimum radius of curvature
GL	295.926	683.887	0.000424910	2363.8 m

DEFINITION OF LINE - PROFILE

Revision 1 - 15/2/99

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Project

CAIRNGORM FUNICULAR

Drawing

LONGITUDINAL SECTION
SHEET 1 OF 7
CHAINAGE 0 – 340

Drawing No. CA150/2/11 Drawn By

REV. F Date 08/02/99

Scale 1:500

Revisions Date By

A 26/2/99
Column chainages and top rail levels added.
Column bases added.

B 15/4/99
Ref pt. A & Bottom Station altered.
Borehole and trial pit information added.
Tower types shown.
Table amended.

C 17/5/99
Ref pt. A moved to elevation 637m. Table amended.

D 15/10/99
Towers 0–4 have been altered due to existing features.
Table amended for revised Vertical alignment.
Designed steel sections added.
Extent of Bottom Station has been updated.
Supports from new station are added.

E 24/3/00
Angle of brackets added.
Locations of required pedestrian walkway and fencing are added.
Foundation levels on towers 0–4 have been amended.

F 9/11/00
Pedestrian walkway removed.

REDUCED FROM A1

Point	Chainage	Elevation	Remarks
A	28.716	637.000	Ref pt for bottom station
B	85.956	645.709	
C	150.668	660.103	
D	284.566	674.471	
E	300.409	676.012	
F	435.580	687.802	
G	452.087	689.070	
H	898.677	761.500	Ref pt for middle station (lower)
J	912.057	765.000	Ref pt for middle station (upper)
K	999.208	789.752	Mid-point of line
L	1165.781	846.479	
M	1191.462	855.691	
N	1408.929	939.087	
O	1471.287	962.795	
P	1620.826	1012.618	
R	1690.416	1032.356	
S	1918.334	1086.000	Ref pt for top station (lower)
T	1935.329	1090.000	Ref pt for top station (upper)

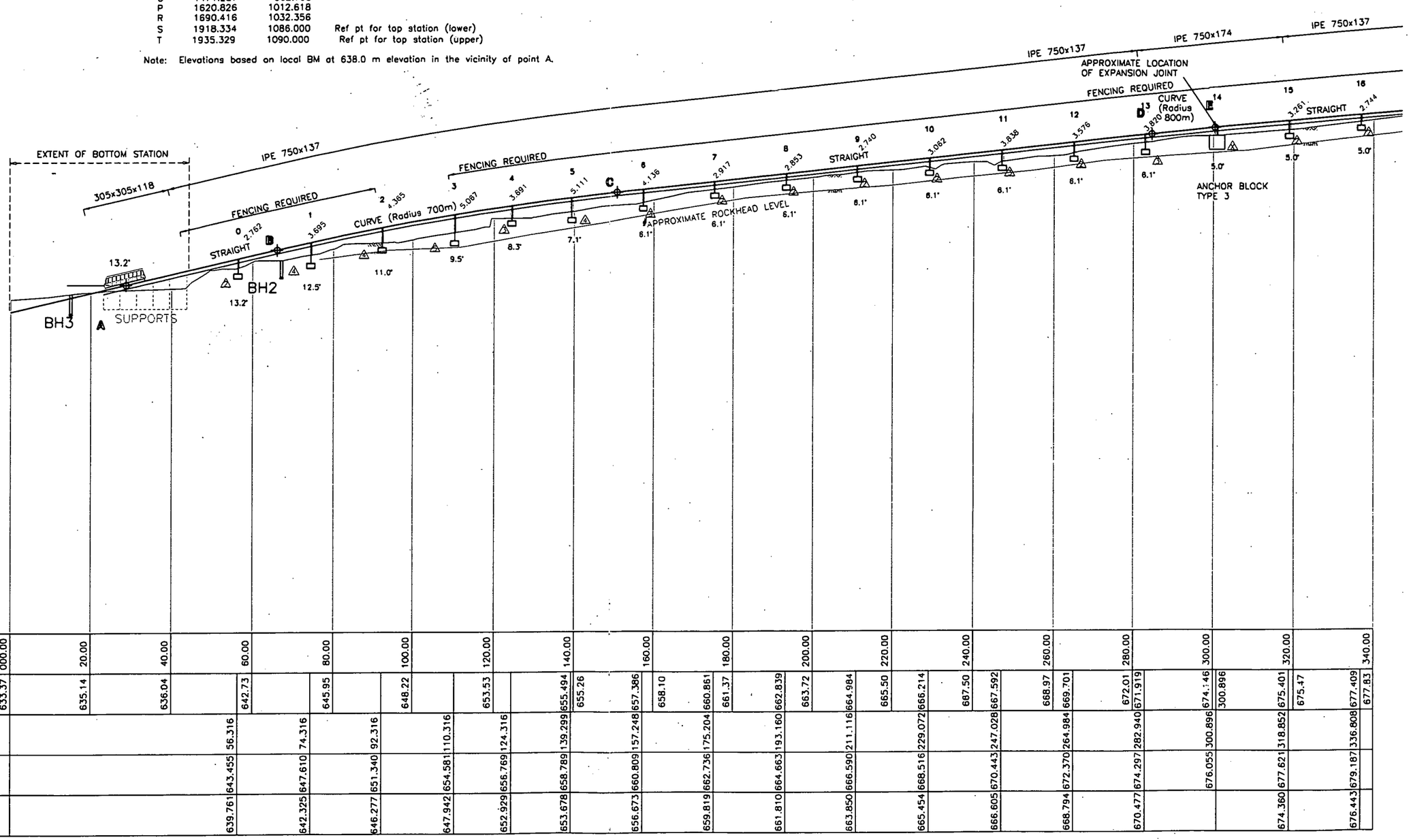
Note: Elevations based on local BM at 638.0 m elevation in the vicinity of point A.

NOTES

BASED ON GROUND RADAR INFORMATION

3.820 HEIGHT OF RAIL LEVEL ABOVE TOP OF FOUNDATION

A COLUMN TYPE(SEE DRG. CA150/2/40-41)



DATUM 550.00m

CHAINAGE	000.00	20.00	40.00	60.00	80.00	100.00	120.00	140.00	160.00	180.00	200.00	220.00	240.00	260.00	280.00	300.00	320.00	340.00
EXISTING GROUND LEVEL	633.37	635.14	636.04	642.73	645.95	648.22	653.53	655.494	655.26	657.386	658.10	660.861	661.37	662.839	663.72	664.984	665.50	666.214	667.50	667.592	668.97	669.701	672.01	671.919	674.146	300.896	675.401	675.47	677.409	677.83
COLUMN CHAINAGE				56.316	74.316	92.316	110.316	124.316	139.299	157.248	175.204	193.160	211.116	229.072	247.028	264.984	282.940	300.896	318.852											
TOP RAIL LEVEL				643.455	647.610	651.340	654.581	656.769	658.789	660.809	662.736	664.663	666.590	668.516	670.443	672.370	674.297	676.055	677.621											
TOP OF FOUNDATION LEVEL				639.761	642.325	646.277	647.942	652.929	653.678	656.673	659.819	661.810	663.850	665.454	666.605	668.794	670.477		674.360									676.443	679.187	336.808	

Drawing: LONGITUDINAL SECTION 1 OF 7 CHAINAGE 0 – 340

Drawing No. CA150/2/11 Revision C

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Project:

CAIRNGORM FUNICULAR

Drawing

LONGITUDINAL SECTION
SHEET 2 OF 7
CHAINAGE 360 – 700

Drawing No. CA150/2/12 | Drawn By [redacted]

REV. F | Date 8/2/'99 | Scale 1:500

Revisions

	Date	By
A	26/2/99	[redacted]
Column chainages and top rail levels added. Column bases added		
B	15/4/99	[redacted]
Borehole and trial pit information added. Tower types shown. Table amended.		
C	17/5/99	[redacted]
Table amended		
D	15/10/99	[redacted]
Table amended for revised Vertical alignment. Designed steel sections added.		
E	9/11/99	[redacted]
Angle of brackets added. Locations of required pedestrian walkway and fencing are added.		
F	9/11/00	[redacted]
Pedestrian walkway removed.		

REDUCED FROM A1

DATUM 590.00m

Point	Chainage	Elevation	Remarks
A	28.718	637.000	Ref pt for bottom station
B	85.956	645.709	
C	150.668	660.103	
D	284.566	674.471	
E	300.409	676.012	
F	435.580	687.802	
G	452.087	689.070	
H	898.677	761.500	Ref pt for middle station (lower)
J	912.057	765.000	Ref pt for middle station (upper)
K	999.208	789.752	Mid-point of line
L	1165.781	846.479	
M	1191.462	855.691	
N	1408.929	939.087	
O	1471.287	962.795	
P	1620.828	1012.618	
R	1690.416	1032.356	
S	1918.334	1086.000	Ref pt for top station (lower)
T	1935.329	1090.000	Ref pt for top station (upper)

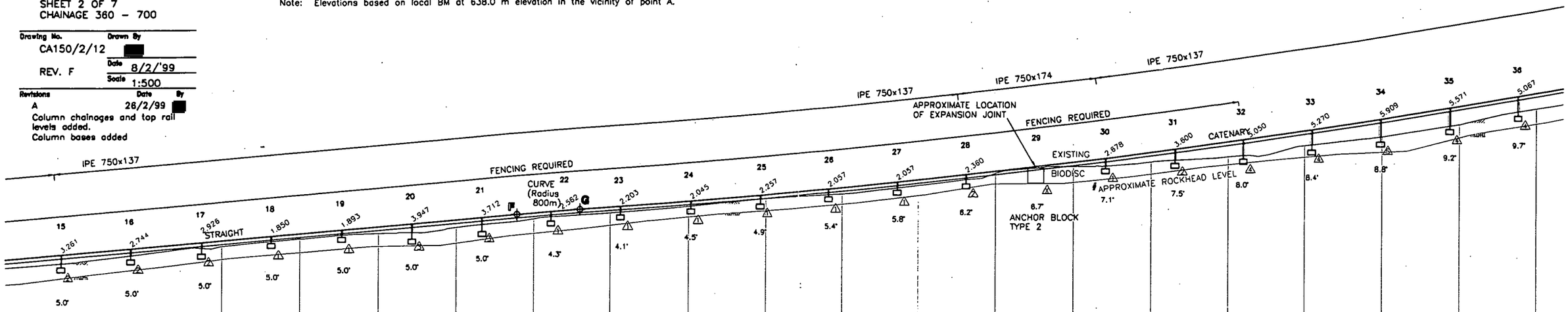
Note: Elevations based on local BM at 638.0 m elevation in the vicinity of point A.

NOTES

BASED ON GROUND RADAR INFORMATION

3.820 HEIGHT OF RAIL LEVEL ABOVE TOP OF FOUNDATION

A COLUMN TYPE(SEE DRG. CA150/2/40-41)



CHAINAGE	360.00	380.00	400.00	420.00	440.00	460.00	480.00	500.00	520.00	540.00	560.00	580.00	600.00	620.00	640.00	660.00	680.00	700.00
EXISTING GROUND LEVEL	679.445 679.75	681.233 681.62	682.592 682.94	682.885 681.52	685.256 686.55	686.963 688.15	688.338 689.77	689.697 690.955	691.71 692.799 692.90	694.525 695.10	696.172 698.26	699.506 700.00	699.980 701.11	701.669 702.37	702.622 705.26	705.372 707.379	707.44 710.241	710.60 713.478 714.64
COLUMN CHAINAGE	354.765	372.720	390.674	408.630	426.585	444.557	462.551	480.536	498.511	516.474	534.424	552.361	570.283	588.189	606.078	623.950	641.804	659.639 695.246
TOP RAIL LEVEL	680.753	682.319	683.885	685.451	687.017	688.534	689.788	691.131	692.612	694.229	695.982	697.871	699.897	702.058	704.353	706.784	709.349	712.048 717.845
TOP OF FOUNDATION LEVEL	677.827	680.469	681.992	681.504	683.305	685.972	687.585	689.086	690.355	692.172	693.925	695.511	697.871	699.380	700.753	701.734	704.079	706.139 712.778

Drawing: LONGITUDINAL SECTION 2 OF 7 CHAINAGE 360 – 700 | Drawing No. CA150/2/12 | Revision C

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Project

CAIRNGORM FUNICULAR

Drawing

LONGITUDINAL SECTION
SHEET 3 OF 7
CHAINAGE 700 – 1040

Drawing No. CA150/2/13 — Drawn By [redacted]

REV. F — Date 8/2/'99 — Scale 1:500

Revisions

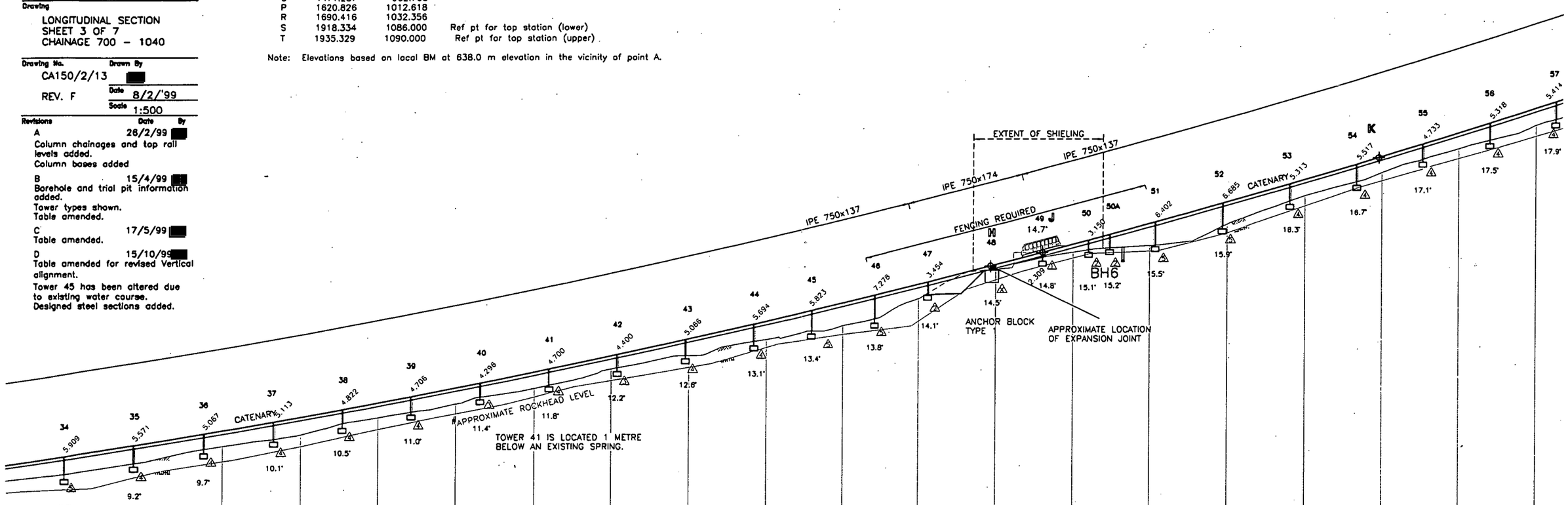
	Date	By
A	26/2/99	[redacted]
Column chainages and top rail levels added. Column bases added		
B	15/4/99	[redacted]
Borehole and trial pit information added. Tower types shown. Table amended.		
C	17/5/99	[redacted]
Table amended.		
D	15/10/99	[redacted]
Table amended for revised Vertical alignment. Tower 45 has been altered due to existing water course. Designed steel sections added.		
E	24/3/00	AM
Angle of brackets added. Locations of required pedestrian walkway and fencing are added. Foundation level on tower 45 has been amended.		
F	9/11/00	AM
Pedestrian walkway removed. DATUM 670.00m		

Point	Chainage	Elevation	Remarks
A	28.716	637.000	Ref pt for bottom station
B	65.956	645.709	
C	150.888	680.103	
D	284.566	674.471	
E	300.409	676.012	
F	435.580	687.802	
G	452.087	689.070	
H	898.677	761.500	Ref pt for middle station (lower)
J	912.057	765.000	Ref pt for middle station (upper)
K	999.208	789.752	Mid-point of line
L	1165.781	846.479	
M	1191.462	855.891	
N	1408.929	939.087	
O	1471.287	962.795	
P	1620.826	1012.618	
R	1690.416	1032.356	
S	1918.334	1086.000	Ref pt for top station (lower)
T	1935.329	1090.000	Ref pt for top station (upper)

Note: Elevations based on local BM at 638.0 m elevation in the vicinity of point A.

NOTES
1. BASED ON GROUND RADAR INFORMATION
2. 3.820 HEIGHT OF RAIL LEVEL ABOVE TOP OF FOUNDATION
3. COLUMN TYPE(SEE DRG. CA150/2/40-41)

REDUCED FROM A1



CHAINAGE	700.00		720.00		740.00		760.00		780.00		800.00		820.00		840.00		860.00		880.00		900.00		920.00		940.00		960.00		980.00		1000.00		1020.00		1040.00
EXISTING GROUND LEVEL	714.64	716.814	717.66	720.269	722.12	723.428	725.59	727.331	729.64	730.550	734.68	734.603	738.059	738.11	741.300	742.35		745.86	747.234	752.93	754.612	761.073	760.63	763.704	765.06	765.727		786.87	767.213	771.760	772.41	778.148	779.69	783.083	785.66	789.563	791.95	794.201	797.93
COLUMN CHAINAGE		713.017		730.765		748.488		766.188		783.861		801.510		819.132		836.726		851.816		868.326		882.332		898.677		912.057		924.046	929.509	941.400		958.751		976.095		993.405		1010.680		1027.919	
TOP RAIL LEVEL		720.943		724.173		727.534		731.027		734.650		738.403		742.285		746.296		749.823		753.840		757.323		761.500		765.000		768.206	769.688	772.960		777.845		782.861		788.000		793.261		798.644	
TOP OF FOUNDATION LEVEL		715.830		719.351		722.828		726.731		729.950		734.003		737.219		740.602		743.770		746.562		753.869				762.691		765.056		766.558		771.160		777.548		782.483		788.528		793.326	

Drawing: LONGITUDINAL SECTION 3 OF 7 CHAINAGE 700 – 1040 — Drawing No. CA150/2/13 — Revision. C

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Project:

CAIRNGORM FUNICULAR

Drawing:

LONGITUDINAL SECTION
SHEET 4 OF 7
CHAINAGE 920 - 1260

Drawing No. CA150/2/14 — Drawn By [redacted]
REV. F — Date 8/2/'99 — Scale 1:500

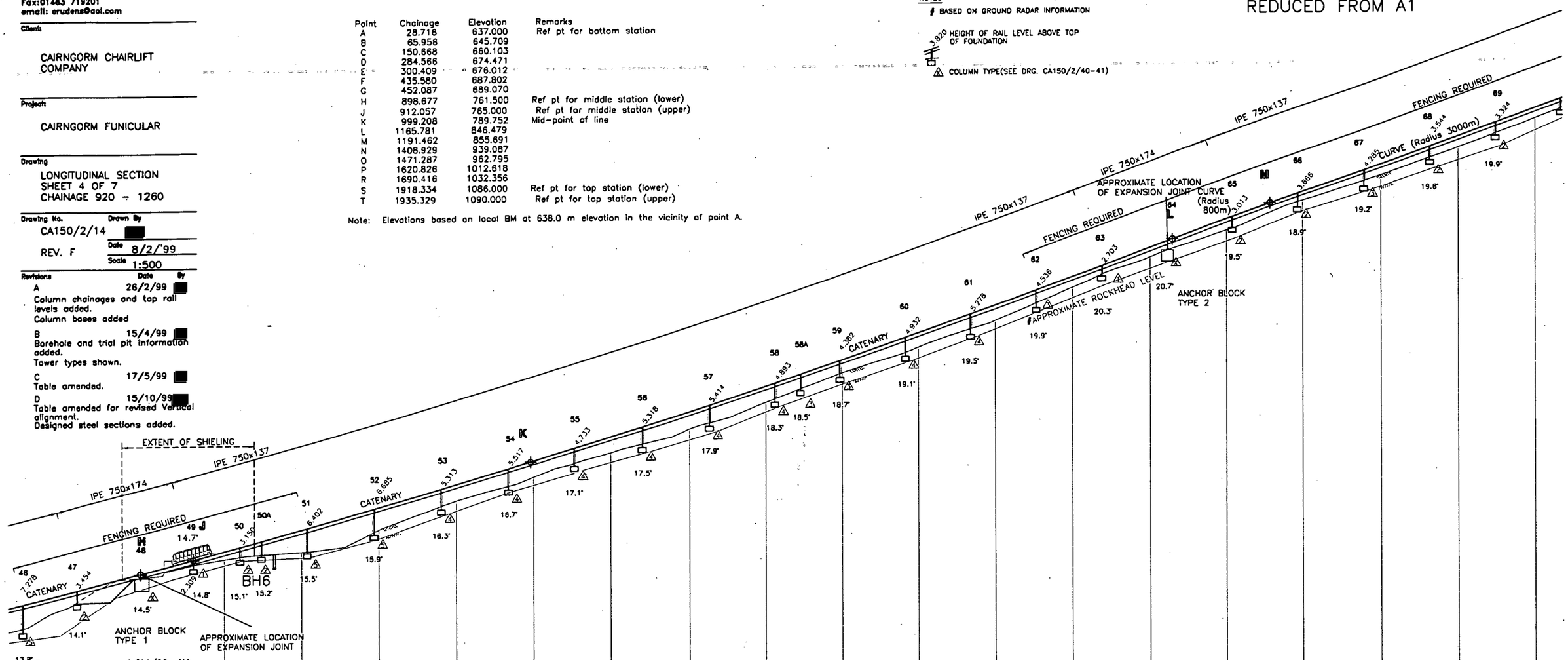
Revisions	Date	By
A Column chainages and top rail levels added. Column bases added	26/2/99	[redacted]
B Borehole and trial pit information added. Tower types shown.	15/4/99	[redacted]
C Table amended.	17/5/99	[redacted]
D Table amended for revised Vertical alignment. Designed steel sections added.	15/10/99	[redacted]
E Angle of brackets added. Locations of required pedestrian walkway and fencing are added.	9/11/99	AM
F Pedestrian walkway removed.	9/11/00	AM

Point	Chainage	Elevation	Remarks
A	28.716	637.000	Ref pt for bottom station
B	65.956	645.709	
C	150.668	660.103	
D	284.566	674.471	
E	300.409	676.012	
F	435.580	687.802	
G	452.087	689.070	
H	898.677	761.500	Ref pt for middle station (lower)
J	912.057	765.000	Ref pt for middle station (upper)
K	999.208	789.752	Mid-point of line
L	1165.781	846.479	
M	1191.462	855.691	
N	1408.929	939.087	
O	1471.287	962.795	
P	1620.826	1012.618	
R	1690.416	1032.356	
S	1918.334	1086.000	Ref pt for top station (lower)
T	1935.329	1090.000	Ref pt for top station (upper)

Note: Elevations based on local BM at 638.0 m elevation in the vicinity of point A.

NOTES
BASED ON GROUND RADAR INFORMATION
3.820 HEIGHT OF RAIL LEVEL ABOVE TOP OF FOUNDATION
COLUMN TYPE(SEE DRG. CA150/2/40-41)

REDUCED FROM A1



CHAINAGE	920.00		940.00	960.00	980.00	1000.00	1020.00	1040.00	1060.00		1080.00	1100.00	1120.00	1140.00	1160.00	1180.00	1200.00	1220.00	1240.00	1260.00
EXISTING GROUND LEVEL	765.59	765.727	766.87	767.213	771.760	772.41	778.148	779.69	783.083	785.66	789.563	791.95	794.201	797.93	799.368	804.72	805.802	812.100	812.21	817.282	818.73	823.085	825.53	829.889	833.95	837.691	841.68	844.636	848.55	849.839	855.362	856.21	860.907	862.61	867.092	869.67	873.586	877.13
COLUMN CHAINAGE		924.046	929.509	941.400	958.751	976.095	993.405	1010.680	1027.919	1045.122	1062.288	1068.907	1079.416	1096.506	1113.557	1130.569	1147.541	1164.472	1181.551	1198.621	1215.653	1232.650	1249.613															
TOP RAIL LEVEL		768.206	769.688	772.960	777.845	782.861	788.000	793.261	798.644	804.147	809.770	811.974	815.513	821.373	827.352	833.447	839.658	845.984	852.252	858.132	864.021	870.012	876.107															
TOP OF FOUNDATION LEVEL		765.056		766.558	771.160	777.548	782.483	788.528	793.326	798.733	804.877		811.131	816.441	822.074	828.911	836.955		849.239	854.466	859.736	866.468	872.783															

Drawing: LONGITUDINAL SECTION 4 OF 7 CHAINAGE 920 - 1260
Drawing No. CA150/2/14 Revision C

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Project

CAIRNGORM FUNICULAR

Drawing

LONGITUDINAL SECTION
SHEET 5 OF 7
CHAINAGE 1220 – 1560

Drawing No. CA150/2/15 REV. F

Drawn By [redacted]

Date 8/2/'99

Scale 1:500

Revisions

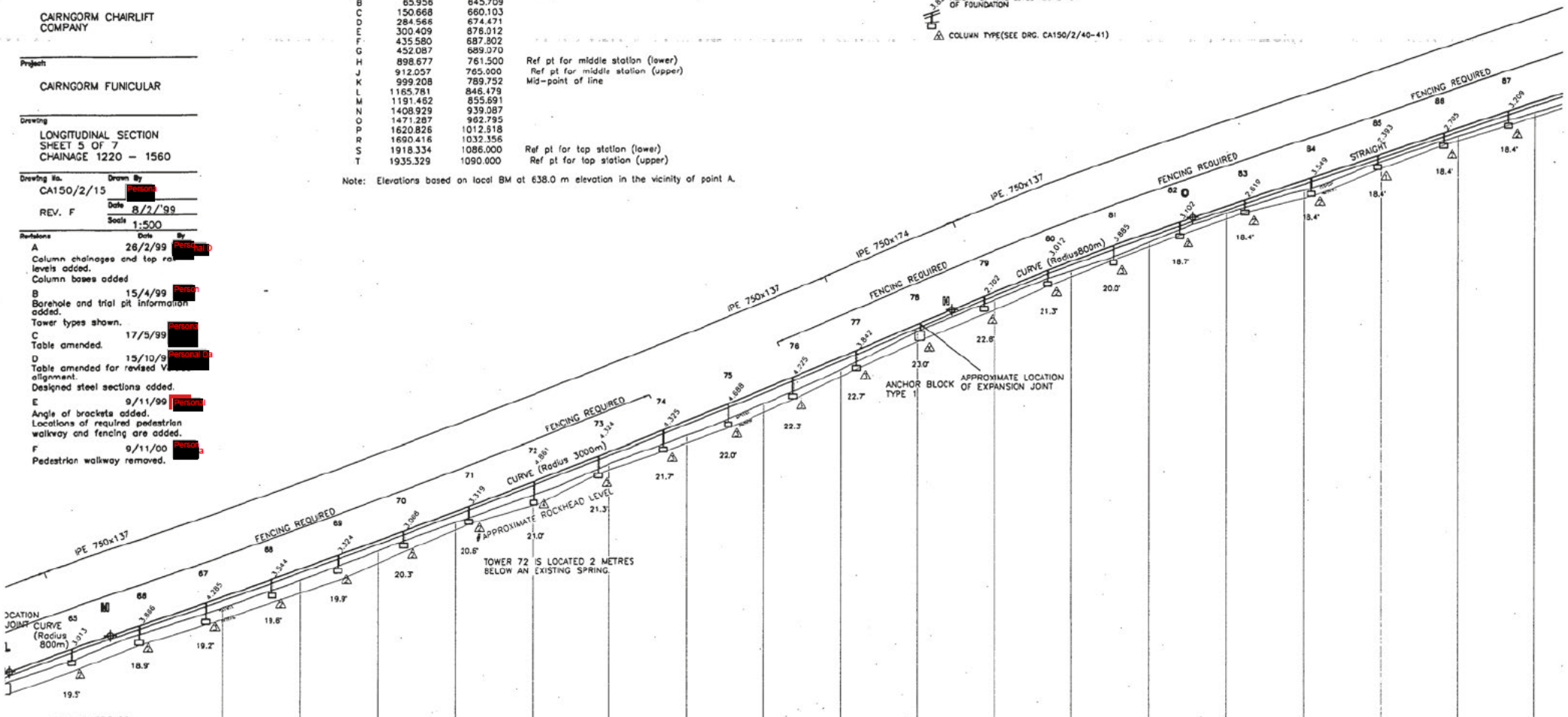
	Date	By
A	26/2/99	[redacted]
Column chainages and top rail levels added. Column bases added		
B	15/4/99	[redacted]
Borehole and trial pit information added. Tower types shown.		
C	17/5/99	[redacted]
Table amended.		
D	15/10/99	[redacted]
Table amended for revised V[redacted] alignment. Designed steel sections added.		
E	9/11/99	[redacted]
Angle of brackets added. Locations of required pedestrian walkway and fencing are added.		
F	9/11/00	[redacted]
Pedestrian walkway removed.		

Point	Chainage	Elevation	Remarks
A	28.716	637.000	Ref pt for bottom station
B	65.956	645.709	
C	150.668	660.103	
D	284.566	674.471	
E	300.409	676.012	
F	435.580	687.802	
G	452.087	689.070	
H	898.677	761.500	Ref pt for middle station (lower)
J	912.057	765.000	Ref pt for middle station (upper)
K	999.208	789.752	Mid-point of line
L	1165.781	846.479	
M	1191.462	855.691	
N	1408.929	939.087	
O	1471.287	962.795	
P	1620.826	1012.818	
R	1690.416	1032.356	
S	1918.334	1086.000	Ref pt for top station (lower)
T	1935.329	1090.000	Ref pt for top station (upper)

Note: Elevations based on local BM at 638.0 m elevation in the vicinity of point A.

NOTES
BASED ON GROUND RADAR INFORMATION
3.820 HEIGHT OF RAIL LEVEL ABOVE TOP OF FOUNDATION
A COLUMN TYPE(SEE DRG. CA150/2/40-41)

REDUCED FROM A1



CHAINAGE	1220.00		1240.00		1260.00		1280.00		1300.00		1320.00		1340.00		1360.00		1380.00		1400.00		1420.00		1440.00		1460.00		1480.00		1500.00		1520.00		1540.00		1560.00
EXISTING GROUND LEVEL	862.61	867.092	869.67	873.566	877.13	880.018	884.41	886.282	890.33	891.691	896.050	899.36	906.64	908.427	914.76	910.734	923.53	923.302	933.24	933.504	941.53	942.499	949.58	947.033	956.29	952.214	963.74	959.226	970.329	965.110	977.02	976.896	983.47	982.359	989.59	987.903
COLUMN CHAINAGE		1232.650		1249.613		1266.541		1283.424		1300.291		1317.112		1333.896		1350.644		1367.354		1384.027		1400.641		1417.254		1433.810		1450.767		1467.797		1484.862		1501.922		1518.992		1538.057		1553.122	
TOP RAIL LEVEL		870.012		876.107		882.303		886.603		895.004		901.508		908.114		914.822		921.632		928.544		935.549		942.691		949.302		955.648		961.624		967.318		973.004		978.689		984.375		990.061	
TOP OF FOUNDATION LEVEL		866.466		872.783		879.235		882.784		891.143		897.184		903.789		910.134		917.407		924.702		931.899		939.041		946.290		951.763		958.522		964.699		969.455		976.296		981.670		986.892	

Drawing: LONGITUDINAL SECTION 5 OF 7 CHAINAGE 1220 – 1560
Drawing No. CA150/2/15 Revision C

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Drawing:

LONGITUDINAL SECTION
SHEET 6 OF 7
CHAINAGE 1460 – 1800

Drawing No. CA150/2/16 Drawn By [redacted]

REV. F Date 8/2/'99 Scale 1:500

Revisions

	Date	By
A	28/2/99	[redacted]
Column chainages and top rail levels added. Column bases added		
B	15/4/99	[redacted]
Borehole and trial pit information added. Tower types shown.		
C	17/5/99	[redacted]
Table amended. Tunnel amended.		
D	15/10/99	[redacted]
Table amended for revised Vertical alignment. Designed steel sections added.		
E	9/11/99	[redacted]
Angle of brackets added. Locations of required pedestrian walkway and fencing are added. Designed steel section amendment.		
F		[redacted]
Pedestrian walkway removed.		

Point	Chainage	Elevation	Remarks
A	28.716	637.000	Ref pt for bottom station
B	65.956	645.709	
C	150.668	880.103	
D	284.566	674.471	
E	300.409	676.012	
F	435.580	687.802	
G	452.087	689.070	
H	898.677	761.500	Ref pt for middle station (lower)
J	912.057	765.000	Ref pt for middle station (upper)
K	999.208	789.752	Mid-point of line
L	1165.781	846.479	
M	1191.462	855.691	
N	1408.929	939.087	
O	1471.287	962.795	
P	1620.826	1012.618	
R	1690.416	1032.356	
S	1918.334	1086.000	Ref pt for top station (lower)
T	1935.329	1090.000	Ref pt for top station (upper)

Note: Elevations based on local BM at 638.0 m elevation in the vicinity of point A.

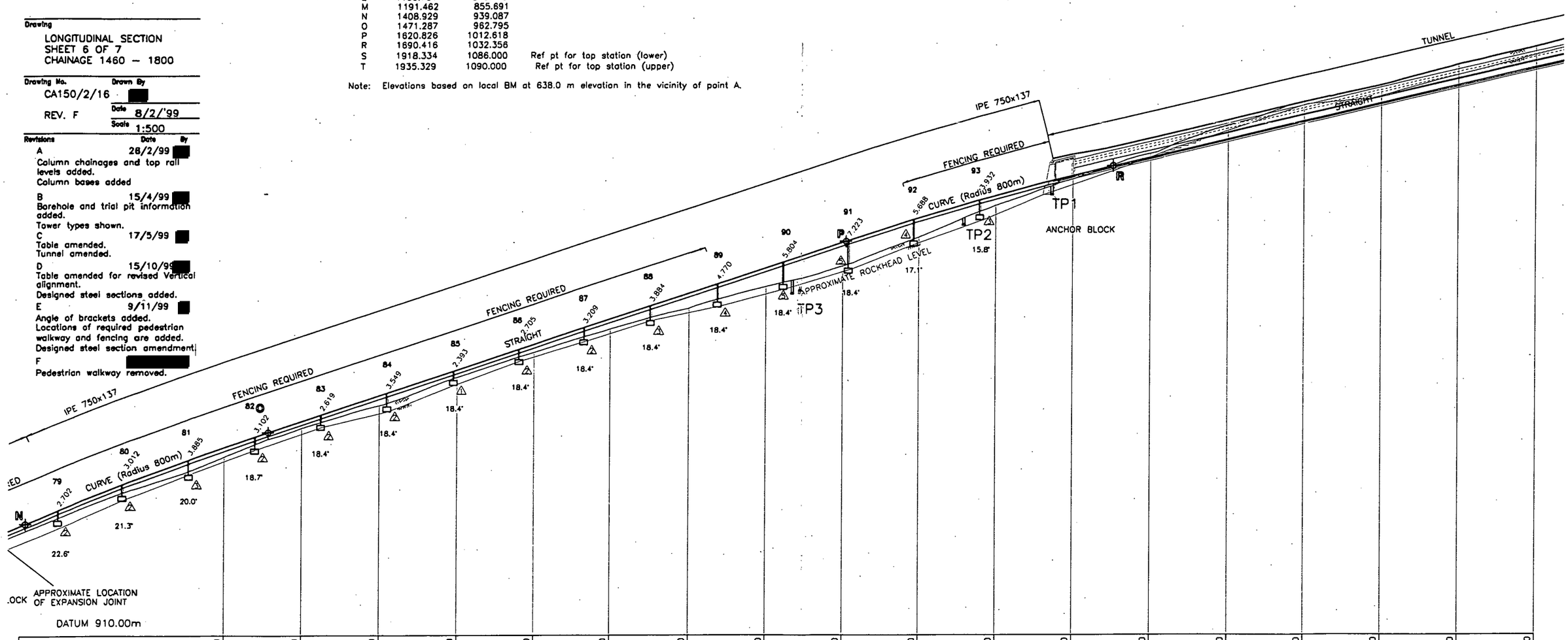
NOTES

BASED ON GROUND RADAR INFORMATION

3.820 HEIGHT OF RAIL LEVEL ABOVE TOP OF FOUNDATION

⚠ COLUMN TYPE(SEE DRG. CA150/2/40-41)

REDUCED FROM A1



CHAINAGE	1460.00		1480.00		1500.00		1520.00		1540.00		1560.00		1580.00		1600.00		1620.00		1640.00		1660.00		1680.00		1700.00		1720.00		1740.00		1760.00		1780.00		1800.00
EXISTING GROUND LEVEL	956.29	959.226	963.74	965.310	969.68	970.329	976.896	977.02	982.359	983.47	987.603	989.59	992.677	995.03	997.380	1000.72	1001.944	1006.09	1006.355	1013.468	1013.60	1020.144	1021.81	1028.79	1035.53	1042.86	1049.56	1053.33	1058.71	1063.44				
COLUMN CHAINAGE		1467.797		1484.862	1501.927		1518.992		1536.057		1553.122		1570.187		1587.251		1604.316		1621.381		638.536	1655.852													
TOP RAIL LEVEL		961.624	967.318		973.004		978.689		984.375		990.061		995.746		1001.432	1007.117	1012.803			1018.290	1023.403		1029.831		1034.612		1039.319		1044.027		1048.734		1053.441		1058.149
TOP OF FOUNDATION LEVEL		958.522	964.699		969.455		976.296		981.670		986.852		991.862		996.662	1001.313	1005.580			1012.602	1019.471													

Drawing: LONGITUDINAL SECTION 6 OF 7 CHAINAGE 1460 – 1800 | Drawing No. CA150/2/16 | Revision C

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Project:

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Drawing

LONGITUDINAL SECTION
SHEET 7 OF 7
CHAINAGE 1660 – 1920

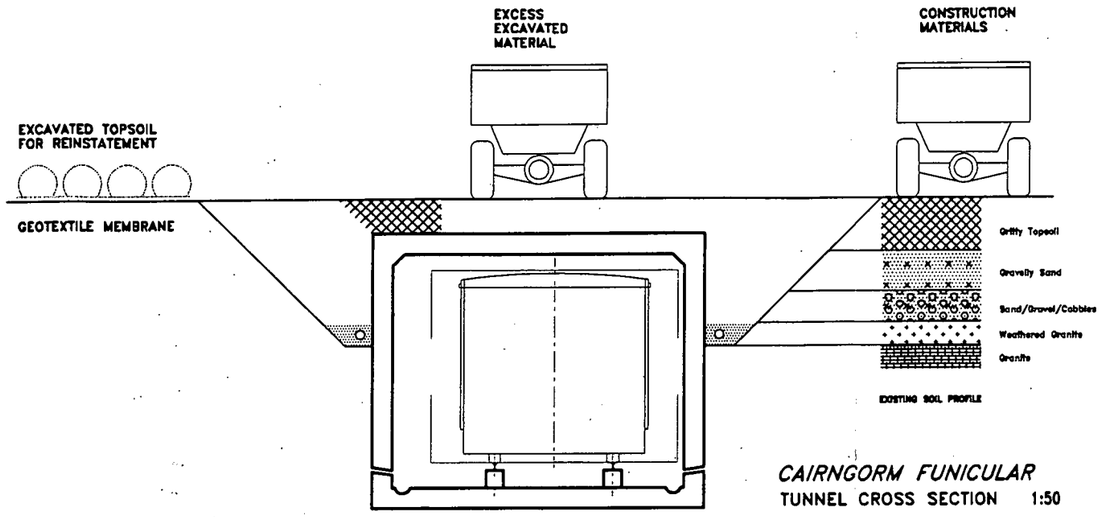
Drawing No. CA150/2/17 Drawn By

REV. F Date 8/2/'99 Scale 1:500

Revisions

	Date	By
A	26/2/99	
Column chainages and top rail levels added. Column bases added		
B	15/4/99	
Borehole and trial pit information added. Tower types shown.		
C	17/5/99	
Table amended. Tunnel amended.		
D	15/10/99	
Table amended for revised Vertical alignment. Designed steel sections added. Extent of Upper Station has been updated. Supports from new station are added.		
E	9/11/99	
Angle of brackets added. Locations of required pedestrian walkway and fencing are added. Designed steel section amendment.		
F	9/11/00	
Pedestrian walkway removed.		

DATUM 970.00m

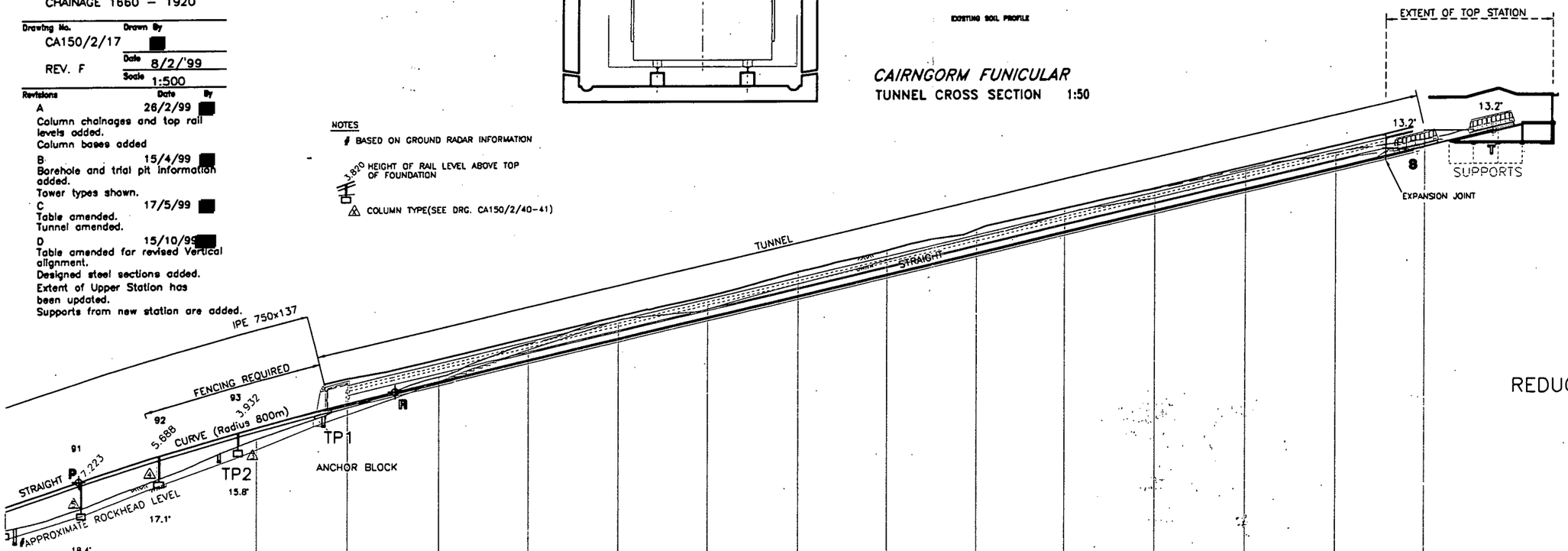


CAIRNGORM FUNICULAR
TUNNEL CROSS SECTION 1:50

Point	Chainage	Elevation	Remarks
A	28.718	637.000	Ref pt for bottom station
B	85.956	645.709	
C	150.868	660.103	
D	284.566	674.471	
E	300.409	676.012	
F	435.580	687.802	
G	452.087	689.070	
H	898.677	761.500	Ref pt for middle station (lower)
J	912.057	765.000	Ref pt for middle station (upper)
K	999.208	789.752	Mid-point of line
L	1165.781	846.479	
M	1191.462	855.691	
N	1408.929	939.087	
O	1471.287	962.795	
P	1620.826	1012.618	
R	1690.416	1032.356	
S	1918.334	1086.000	Ref pt for top station (lower)
T	1935.329	1090.000	Ref pt for top station (upper)

Note: Elevations based on local BM at 638.0 m elevation in the vicinity of point A.

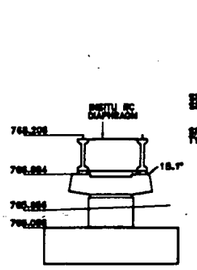
NOTES
BASED ON GROUND RADAR INFORMATION
3.820 HEIGHT OF RAIL LEVEL ABOVE TOP OF FOUNDATION
⚠ COLUMN TYPE(SEE DRG. CA150/2/40-41)



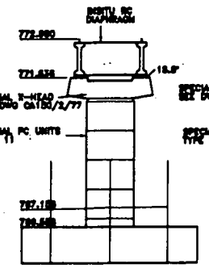
CHAINAGE	1660.00	1680.00	1700.00	1720.00	1740.00	1760.00	1780.00	1800.00	1820.00	1840.00	1860.00	1880.00	1900.00	1920.00				
EXISTING GROUND LEVEL	1021.81	1023.79	1035.53	1042.86	1049.56	1053.33	1058.71	1063.44	1063.01	1072.72	1077.00	1081.37	1085.37	1087.99				
COLUMN CHAINAGE																		
TOP RAIL LEVEL		1029.831	1034.612	1039.319	1044.027	1048.734	1053.441	1058.149	1062.856	1067.563	1072.270	1076.978	1081.685	1086.392				
TOP OF FOUNDATION LEVEL																		

REDUCED FROM A1

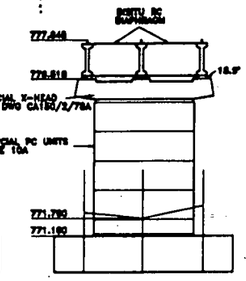
Drawing: LONGITUDINAL SECTION 7 OF 7 CHAINAGE 1660 – 1920
Drawing No. CA150/2/17 Revision C



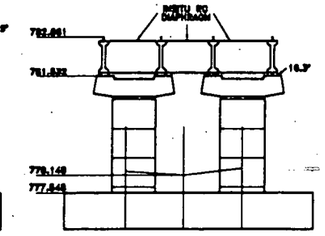
TOWER 50
BASE TYPE 2B



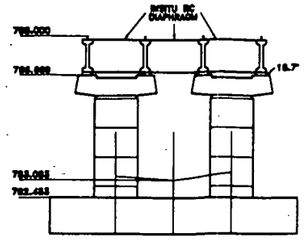
TOWER 51
BASE TYPE 6



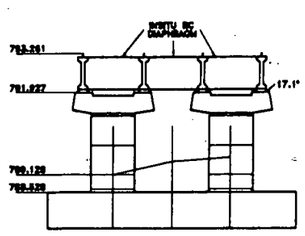
TOWER 52
BASE TYPE 6



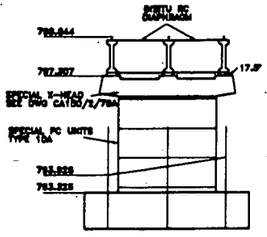
TOWER 53
2 No. TM05
BASE TYPE 7



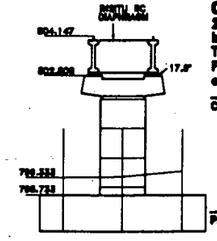
TOWER 54
2 No. TM05
BASE TYPE 7



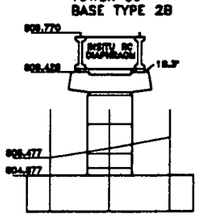
TOWER 55
2 No. TM05
BASE TYPE 7A



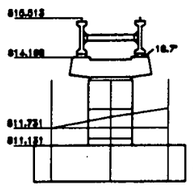
TOWER 56
BASE TYPE 5



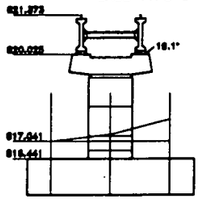
TOWER 57
BASE TYPE 5



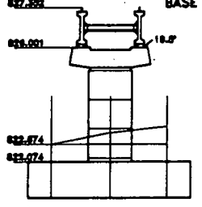
TOWER 58
BASE TYPE 5



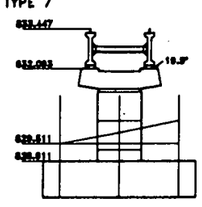
TOWER 59
BASE TYPE 4



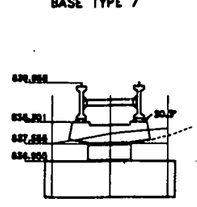
TOWER 60
BASE TYPE 5



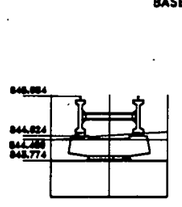
TOWER 61
BASE TYPE 5



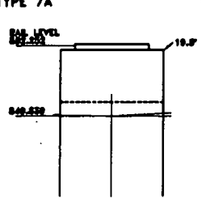
TOWER 62
BASE TYPE 4



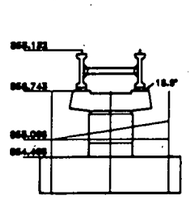
TOWER 63
BASE TYPE 2A



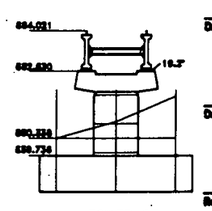
TOWER 64
BASE TYPE 1A



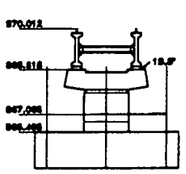
TOWER 65
ANCHOR BLOCK



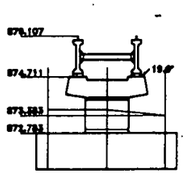
TOWER 66
BASE TYPE 3



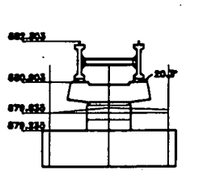
TOWER 67
BASE TYPE 4



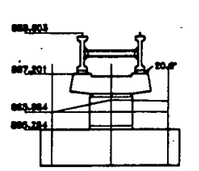
TOWER 68
BASE TYPE 3



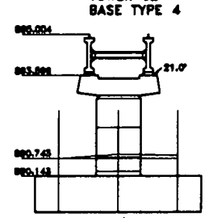
TOWER 69
BASE TYPE 3



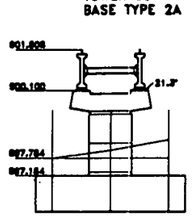
TOWER 70
BASE TYPE 2A



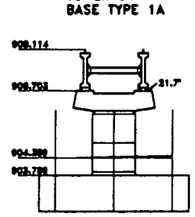
TOWER 71
BASE TYPE 3



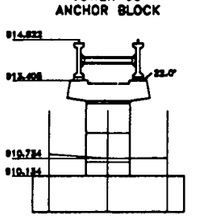
TOWER 72
BASE TYPE 5



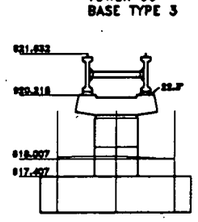
TOWER 73
BASE TYPE 4



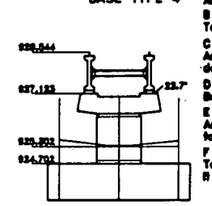
TOWER 74
BASE TYPE 4



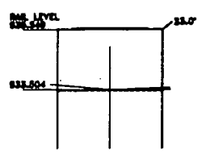
TOWER 75
BASE TYPE 4



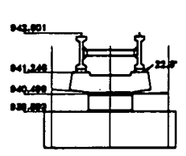
TOWER 76
BASE TYPE 4



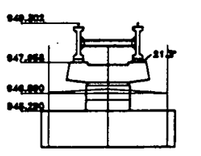
TOWER 77
BASE TYPE 3



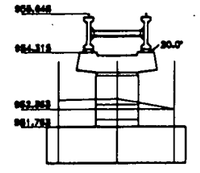
TOWER 78
ANCHOR BLOCK



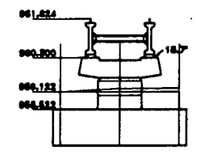
TOWER 79
BASE TYPE 2A



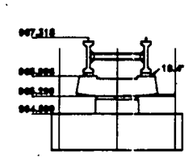
TOWER 80
BASE TYPE 2A



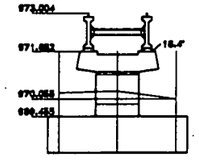
TOWER 81
BASE TYPE 3



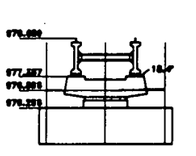
TOWER 82
BASE TYPE 2A



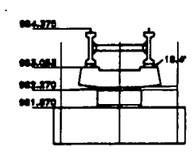
TOWER 83
BASE TYPE 2C



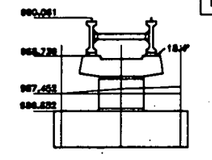
TOWER 84
BASE TYPE 3



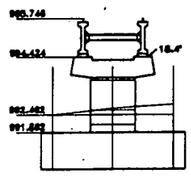
TOWER 85
BASE TYPE 2C



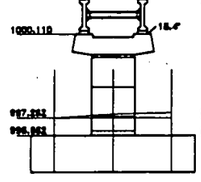
TOWER 86
BASE TYPE 2A



TOWER 87
BASE TYPE 2B



TOWER 88
BASE TYPE 3



TOWER 89
BASE TYPE 5

TOWER 90
BASE TYPE 5

TOWER 91
BASE TYPE 6

TOWER 92
BASE TYPE 5

TOWER 93
BASE TYPE 3

EACH TOWER HEIGHT (m) FROM TOP OF BASE TO TOP OF CROSS HEAD

TOWER	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71
HEIGHT	1.828	5.078	5.358	3.984	4.186	3.399	3.981	4.075	3.551	3.037	3.564	3.927	3.182	1.346	0.850	AB	2.277	2.894	2.150	1.928	1.668	1.917
TOWER	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93
HEIGHT	3.456	2.916	2.914	3.274	2.808	2.421	AB	1.347	1.668	2.552	1.778	1.297	2.227	1.071	1.383	1.887	2.562	3.448	4.482	5.901	4.375	2.627

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email: crudens@aol.com

Client
CAIRNGORM CHAIRLIFT COMPANY

Project
CAIRNGORM FUNICULAR

Drawing
TOWER ELEVATIONS
SHEET 2 OF 2

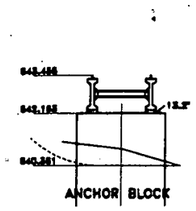
Drawing No. CA150/2/45 REV. F
Drawn By [redacted]
Date OCT 1999
Scale 1:100

Revisions	Date	By
A Angles/Levels added.	23/10/99	[redacted]
B Table showing tower heights.	23/10/99	
C Amended drawing due to revised bear details and concrete beams.	12/4/00	
D Base type amendments.	14/4/00	
E Anchor blocks updated. Passing loop towers 48 to 58 are added.	24/7/00	
F Tower 64 is no longer an anchor block. It has been relocated to tower 65.	27/7/00	

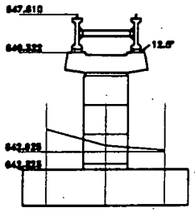
CONTRACT ISSUE
FOR CONSTRUCTION ☑
FOR INFORMATION ONLY ☐

REDUCED FROM A1.

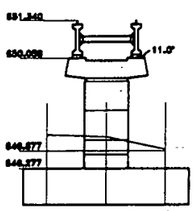
REDUCED FROM A1



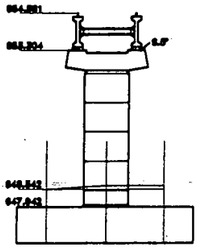
TOWER 0



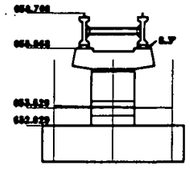
TOWER 1
BASE TYPE 5



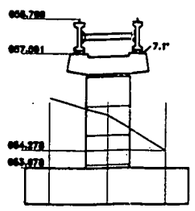
TOWER 2
BASE TYPE 5



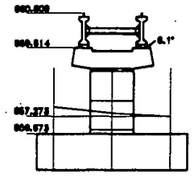
TOWER 3
BASE TYPE 6



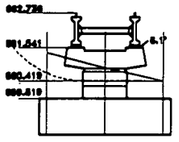
TOWER 4
BASE TYPE 3



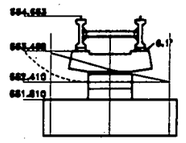
TOWER 5
BASE TYPE 5



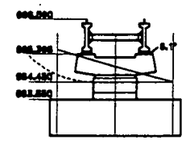
TOWER 6
BASE TYPE 4



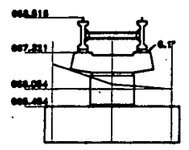
TOWER 7
BASE TYPE 2A



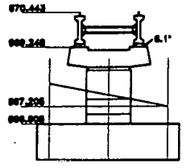
TOWER 8
BASE TYPE 2A



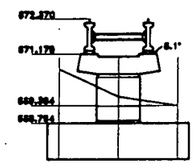
TOWER 9
BASE TYPE 2A



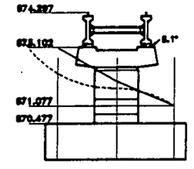
TOWER 10
BASE TYPE 2B



TOWER 11
BASE TYPE 3



TOWER 12
BASE TYPE 3



TOWER 13
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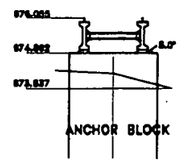
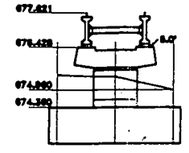


TOWER 14



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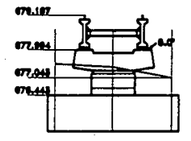
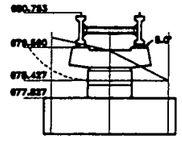
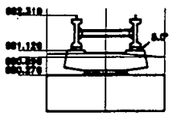


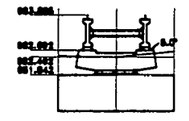
TOWER 16
BASE TYPE 2A



TOWER 17
BASE TYPE 2A



TOWER 18
BASE TYPE 1A



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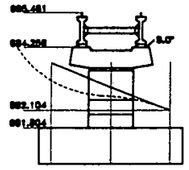
BASE TYPE 1A



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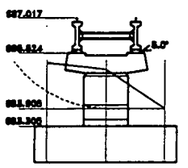
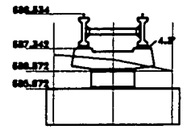
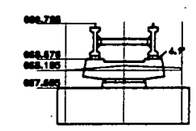
BASE TYPE 3



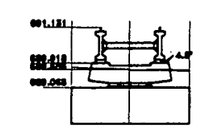
TOWER 21
BASE TYPE 3



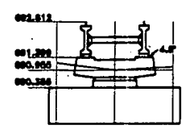
TOWER 22
BASE TYPE 2A



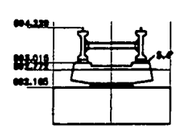
TOWER 23
BASE TYPE 2C



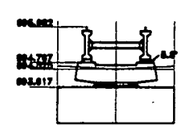
TOWER 24
BASE TYPE 1A



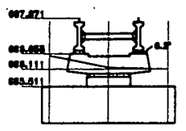
TOWER 25
BASE TYPE 2C



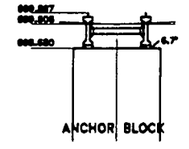
TOWER 26
BASE TYPE 1A



TOWER 27
BASE TYPE 1A



TOWER 28
BASE TYPE 2C



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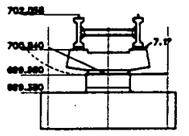

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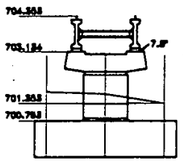
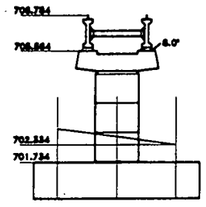
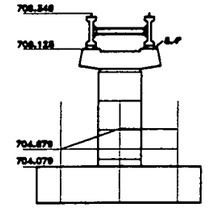


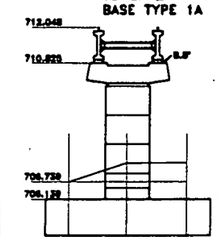
TOWER 31
BASE TYPE 3



TOWER 32
BASE TYPE 5



TOWER 33
BASE TYPE 5



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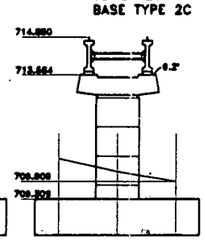
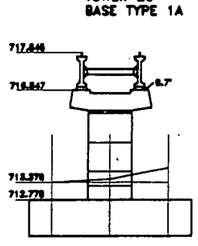
BASE TYPE 5



TOWER 35
BASE TYPE 5



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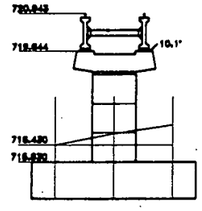

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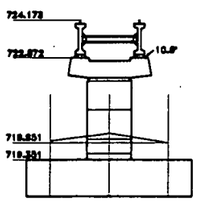

TOWER 38
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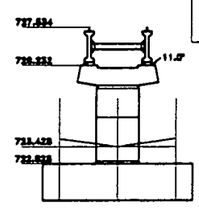

TOWER 39
BASE TYPE 4

TOWER 40
BASE TYPE 4

TOWER 41
BASE TYPE 4

TOWER 42
BASE TYPE 4

TOWER 43
BASE TYPE 5

TOWER 44
BASE TYPE 5

TOWER 45
BASE TYPE 5

TOWER 46
BASE TYPE 6

TOWER 47
BASE TYPE 3

TOWER 48

TOWER 49
BASE TYPE 2C

EACH TOWER HEIGHT (m) FROM TOP OF BASE TO TOP OF CROSS HEAD

TOWER	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
HEIGHT	AB	3.997	3.781	5.362	2.639	3.913	2.941	1.722	1.658	1.545	1.867	2.643	2.381	2.625	AB	2.088	1.551	1.733	0.850	0.850	2.754	2.519	1.370	0.991	0.850
TOWER	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49
HEIGHT	1.044	0.850	0.850	1.144	AB	1.480	2.381	3.830	4.049	4.688	4.275	3.769	3.814	3.521	3.404	2.992	3.394	3.093	3.757	4.382	4.740	5.963	2.136	AB	0.989

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Inverness IV1 1QU
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Client
CAIRNGORM CHAIRLIFT COMPANY

Project
CAIRNGORM FUNICULAR

Drawing
TOWER ELEVATIONS
SHEET 1 OF 2

Drawing No. CA150/2/44
REV. F

Drawn By [redacted]

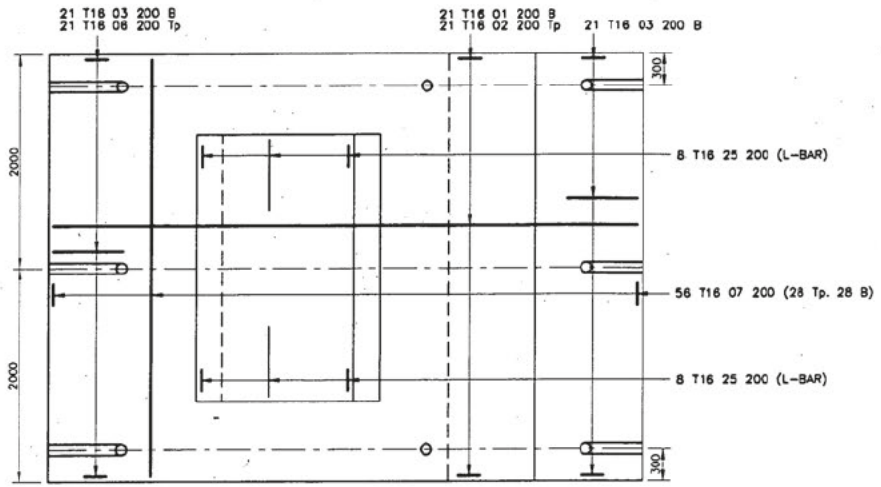
Date OCT 1999

Scale 1:100

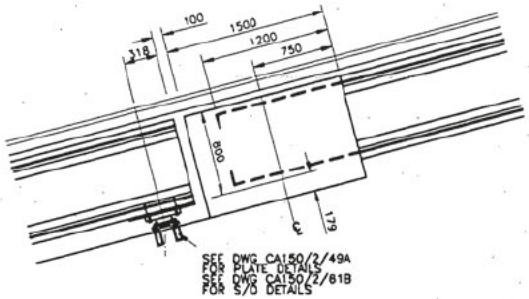
Revisions	Date	By
A Angles/Levels added.	28/10/99	
B Table showing tower heights.	28/10/99	
C Amended drawing due to revised beam details and concrete beams.	12/4/00	
D Base type amendments.	14/4/00	
E Towers 4-34 amended due to revised bearing detail.	20/4/00	
F Tower base 0 is now an anchor block	25/4/00	

CONTRACT ISSUE
FOR CONSTRUCTION ☑
FOR INFORMATION ONLY ☐

NOTES:
PASSING LOOP IN ABEYANCE TOWERS 48 TO 58A.

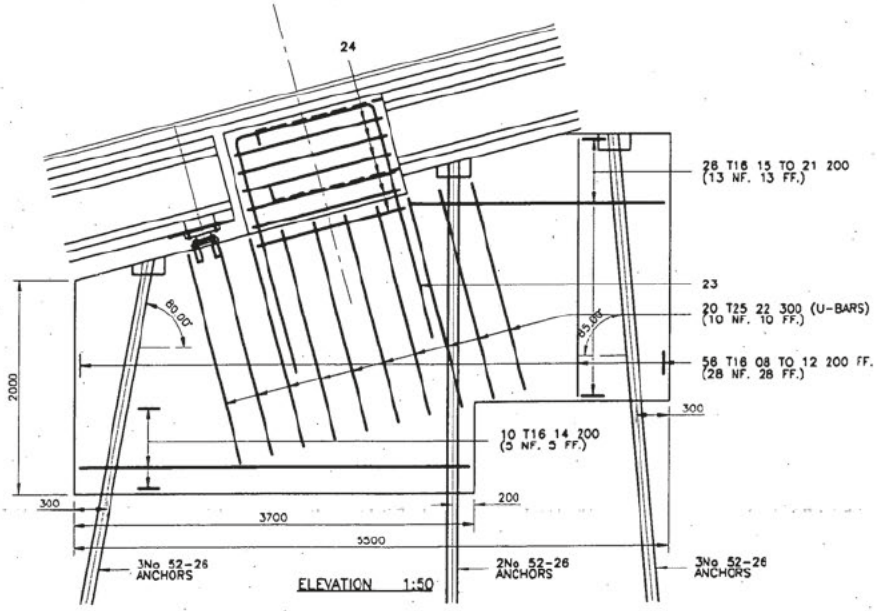


PLAN 1:50

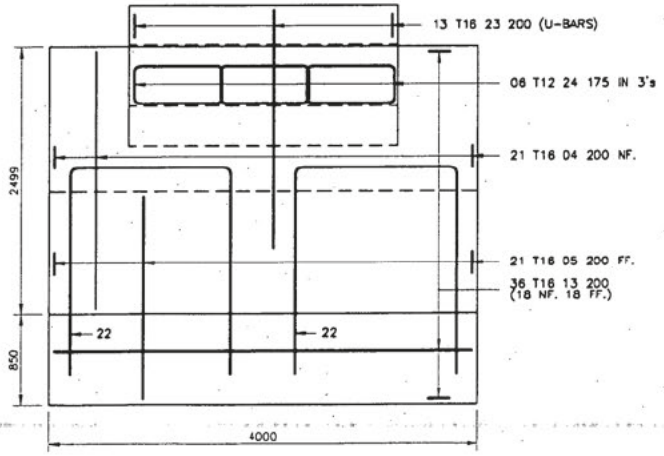


GENERAL NOTES

1. This drawing and the following notes to be read in conjunction with:
   a) Engineer's drawings and specifications,
   b) Architect's drawings,
   c) Services Engineer's drawings.
2. Main contractor to be responsible for checking all site dimensions.
3. Filling around foundations shall be executed in layers not exceeding 250mm in thickness, well consolidated. Fill material shall be clean granular ballast and must be approved by the Engineer.
4. Members shall be cased clean, stone or ballast broken before placing to pass 75mm ring, and free from all rubbish.
5. Foundation areas are designed on the basis of a safe bearing capacity of 150kN/sq.m. This must be confirmed before construction commences. Soft spots below the foundations are to be removed and made up in lean mix concrete. Soft spots below the floor slab to be specified in 3.
6. Concrete to have a minimum crushing strength of 40N/sq.mm. at 28 days. Maximum size of aggregate to be 20mm. Ordinary Portland cement to be used.
7. No admixtures to be used.
8. Aggregate for structural concrete to have a drying shrinkage not exceeding 0.05%.
9. Contractors sources of aggregate to be approved by Engineer.
10. Cover to reinforcement to be 40mm.
11. Reinforcement to be in accordance with BS 4449. Mesh fabric to be in accordance with BS4483. All mesh to be high yield unless otherwise noted on drawings.
12. The location of construction and contraction joints to be agreed with the Engineer. Maximum bay length to be 6m.
13. All workmanship to be in accordance with the relevant Clauses in the Codes of Practice and British Standards:
    Brickwork - BS 5628 Part 2 1985
    Concrete - BS 8110 Part 1 1985
    Timber - BS 5268 Part 2 1984
14. Notations:
    A.B.R. - Alternate Bars Reversed
    A.B.S. - Alternate Bars Staggered
    B. - Bottom
    E.F. - Each Face
    F.F. - Far Face
    N.F. - Near Face
    R. - Mild Steel
    T. - High Yield Steel
    TP. - Top
15. Brickwork and blockwork to have a basic crushing strength of 7N/sq.mm.
16. Mortar to be 1:3 cement:sand plus approved plasticiser.
17. Wall control joints to be at 6m max or as otherwise noted on plans.

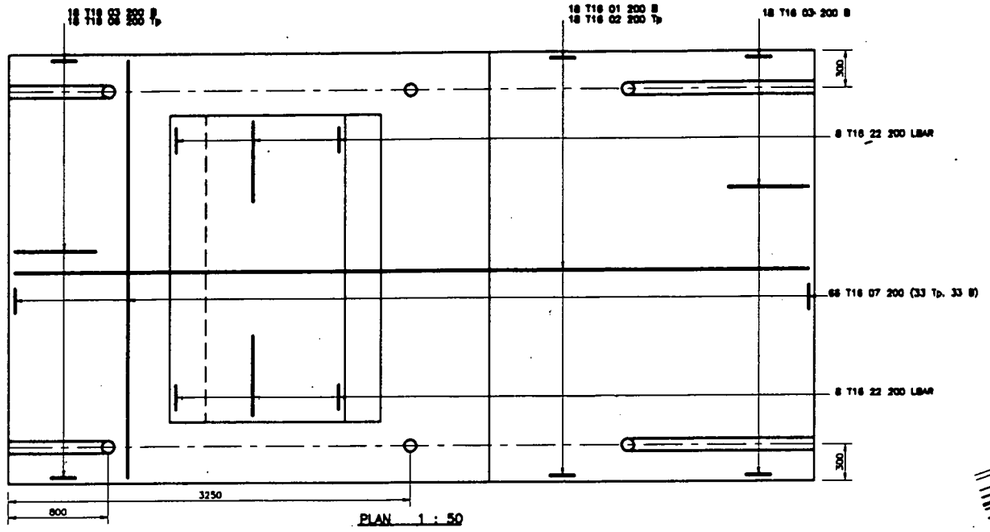


ELEVATION 1:50

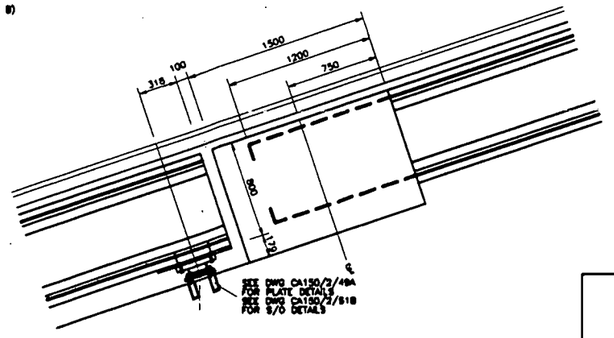


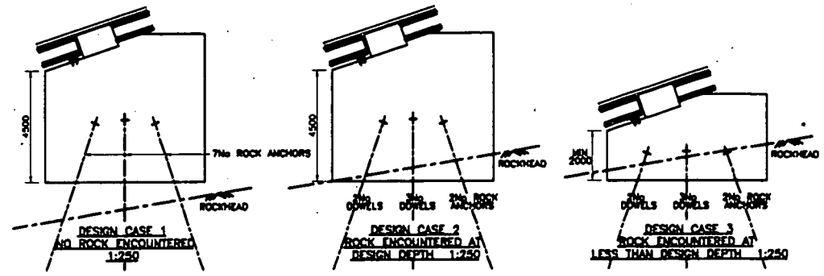
ELEVATION 1:50

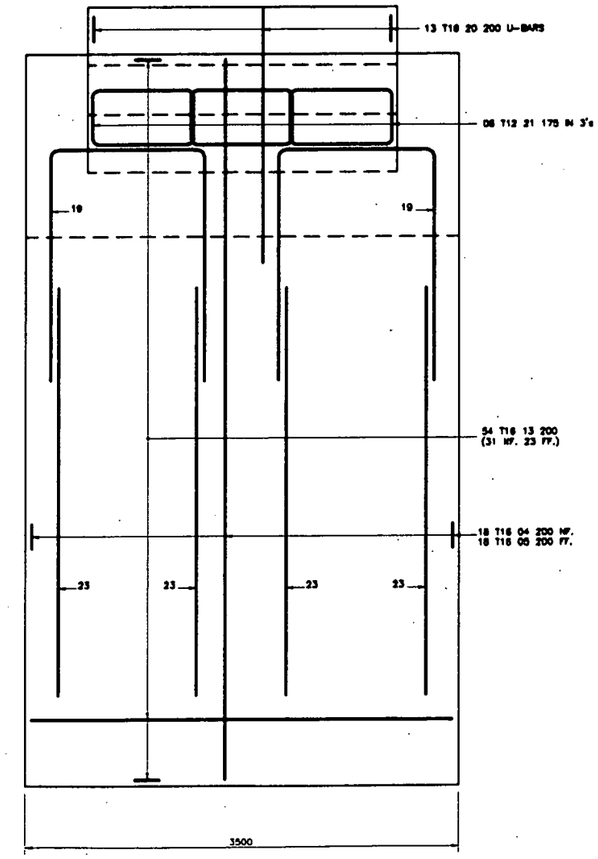
A.F. Cruden Associates Consulting Engineers 24 Bank Street Inverness IV1 1QU Telephone 01463 719200 Facsimilie 01463 719201 email crudens@aol.com	CAIRNGORM CHAIRLIFT COMPANY CAIRNGORM FUNICULAR ANCHOR BLOCK 48 - RC DETAILS	JOB No. CA 150 DRAWING No. 2/38 SCALES 1 : 50 AMENDMENT DRAWN BY Persons DATE 8/8/00



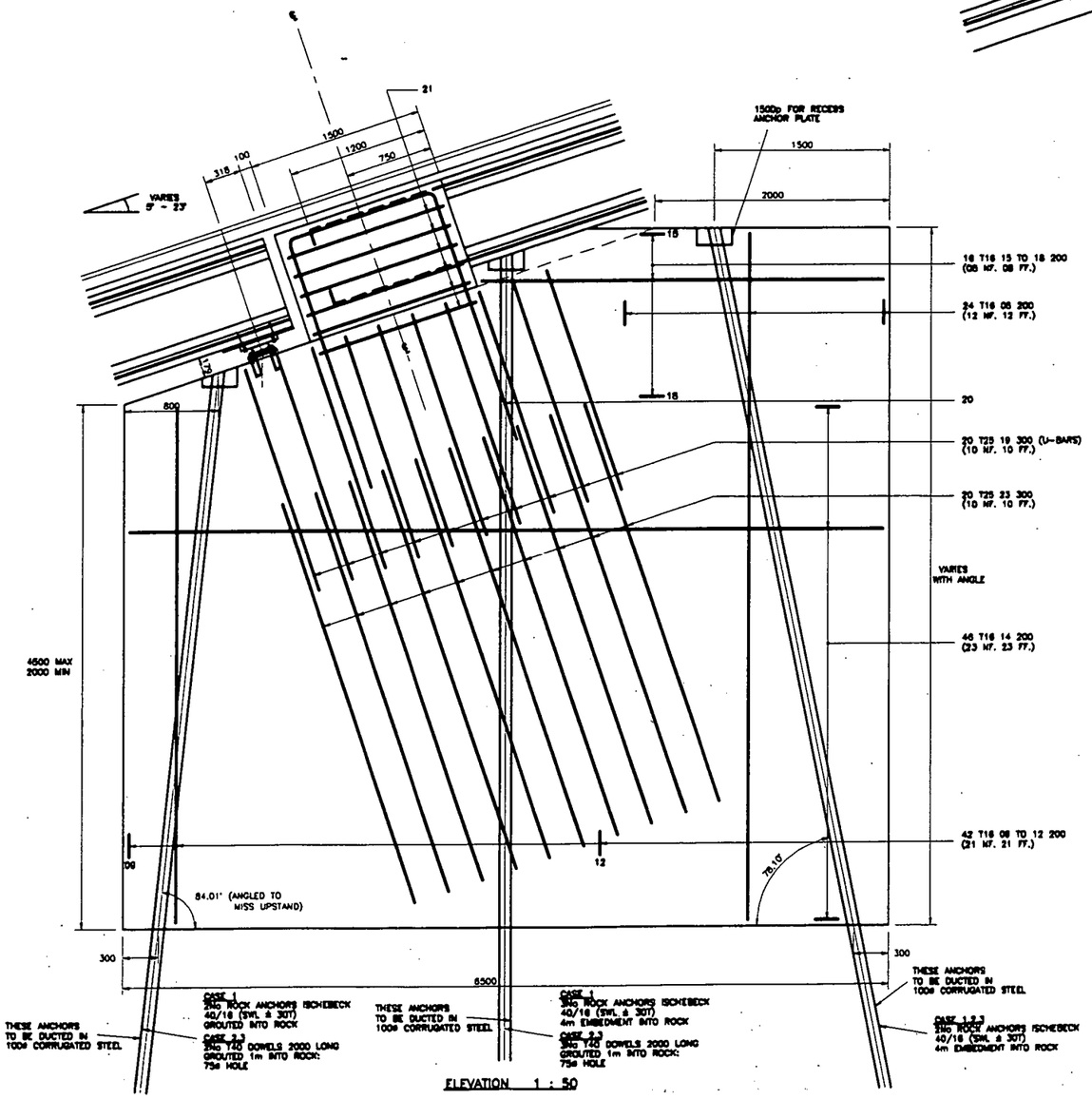
PLAN 1 : 50







ELEVATION 1 : 50



ELEVATION 1 : 50

GENERAL NOTES

1. This drawing and the following notes to be read in conjunction with
   a) Engineer's drawings and specifications.
   b) Architect's drawings.
   c) Services Engineer's drawings.
2. Main contractor to be responsible for checking all site dimensions.
3. Filling around foundations shall be executed in layers not exceeding 250mm in thickness and well rammed. Fill material shall be clean granular material and must be approved by the Engineer.
4. Hardcore shall be good clean stone or suitable broken concrete passing to pass 75mm ring and free from all rubbish.
5. Foundation steps are designed on the basis of a safe bearing capacity of 150kN/sq.m. This must be confirmed before construction commences. Soft spots below the foundations are to be removed and made up in lean mix concrete. Soft spots below the floor slab to be notified as specified in 3.
6. Concrete to have a minimum crushing strength of 40N/sq.mm. at 28 days. Maximum size of aggregate to be 20mm. Ordinary portland cement to be used.
7. No admixtures to be used.
8. Aggregate for structural concrete to have a drying shrinkage not exceeding 0.085%.
9. Contractors source of aggregate to be approved by Engineer.
10. Cover to reinforcement to be 45mm.
11. Reinforcement to be in accordance with BS 4449, Mesh fabric to be in accordance with BS4483. All mesh to be high yield unless otherwise noted on drawings.
12. The location of construction and contraction joints to be agreed with the Engineer. Maximum bay length to be 6m.
13. All workmanship to be in accordance with the relevant Clauses in the Codes of Practice and British Standards.
    Brickwork - BS 5628 Part 2 1985
    Concrete - BS 8110 Part 1 1985
    Timber - BS 5268 Part 2 1984
14. Notation:
    A.B.R. - Alternate Bars Reversed
    A.B.S. - Alternate Bars Staggered
    B. - Bottom
    C.F. - Cast Face
    F.F. - Fair Face
    N.F. - Near Face
    R. - RSJ Steel
    T. - High Yield Steel
    TP. - Top
15. Brickwork and blockwork to have a basic crushing strength of 7N/sq.mm.
16. Mortar to be 1:3 cement:sand plus approved plasticiser.
17. Wall control joints to be at 6m max or as otherwise noted on plans.

D.	ANCHOR AMENDMENTS	15/6/00
C.	TEXT + DETAIL AMENDMENTS	8/6/00
B.	ANCHORS UPDATED	7/6/00

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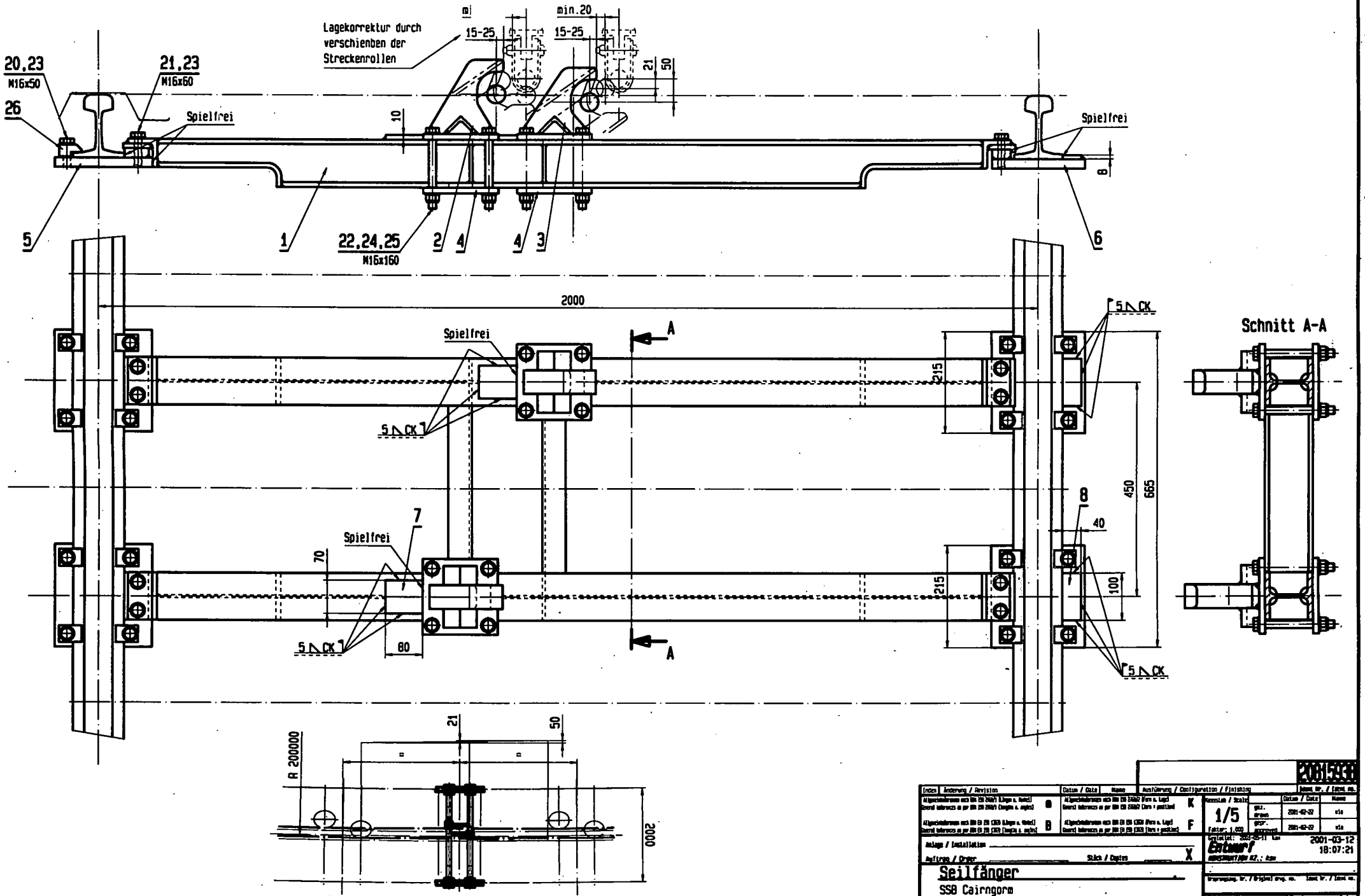
CAIRNGORM CHAIRLIFT COMPANY
CAIRNGORM FUNICULAR

ANCHOR BLOCK TYPE 3A – TYPICAL DETAIL
R-C DETAILS

JOB No.	CA 150
DRAWING No.	2/63
SCALES	1:50
AMENDMENT	REV. D
DRAWN BY	
DATE	12/5/00



Index	Änderung / Revision	Datum / Date	Name
B	Allgemeintoleranzen nach DIN EN 22768 (Klasse c, mittel) General tolerances as per DIN EN 22768 (Category c, medium)		
B	Allgemeintoleranzen nach DIN EN ISO 13920 (Klasse c, mittel) General tolerances as per DIN EN ISO 13920 (Class c, medium)		

Auftrag / Order	Stück / Copies
Anlage / Installation	X

Seilfänger
SS8 Cairngorm

Maßstab / Scale		Datum / Date	Name
1/5	gez. / drawn	2001-03-22	vla
Faktor: 1,000	gepr. / approved	2001-03-22	vla

Erstellt: 2001-03-11 kas
Entwurf
2001-03-12
18:07:21

Zeichnungs-Nr. / Drawing no. 80007701N222300

Doppelmayr Seilbahnen AG

Diese Zeichnung ist unser geistiges Eigentum. Sie darf ohne unsere besondere Zustimmung weder vervielfältigt, noch ausgeführt, noch dritten Personen bekanntgegeben werden.
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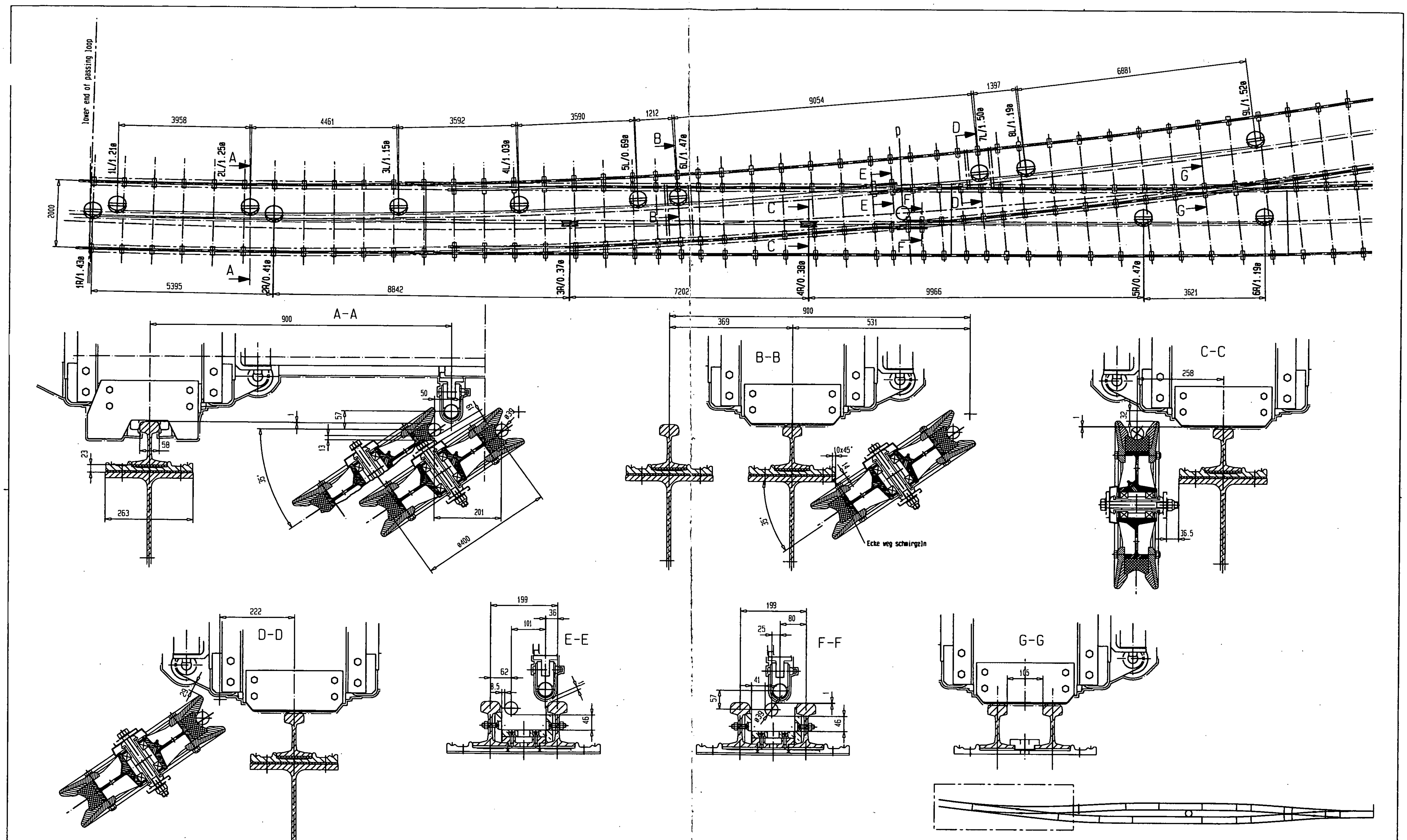
D-Klasse
D-Class
C A2



grundiert
prime painted

XXXXXXXX

Anlage / Installation: SSB Cairngorm

Auftrag / Order

Stück / Copies: X

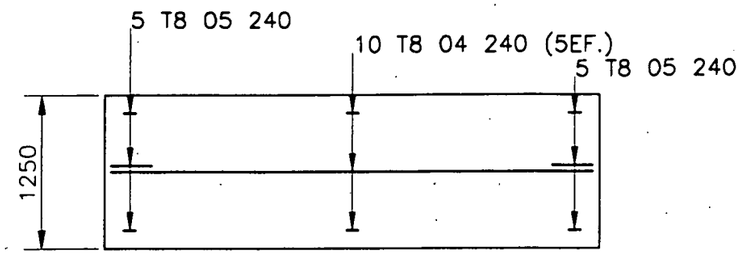
Maßstab / Scale: 1:50

Ausweiche Tal

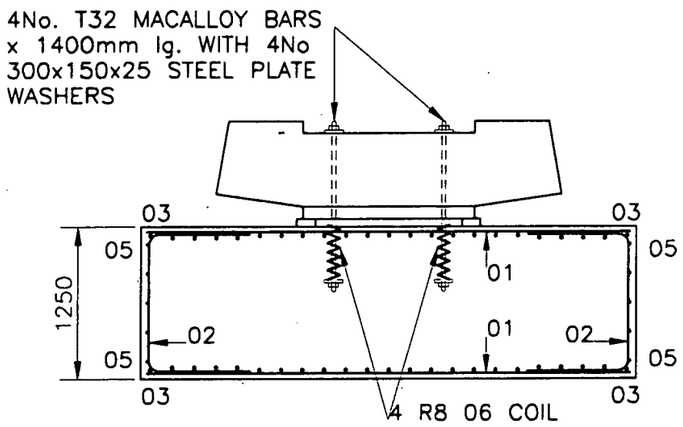
Zeichnungs Nr. / Drawing no.: 1/22-12503

Doppelmayr Seilbahnen AG

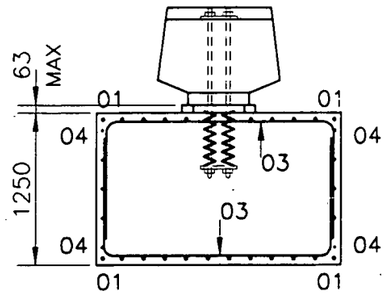
A1



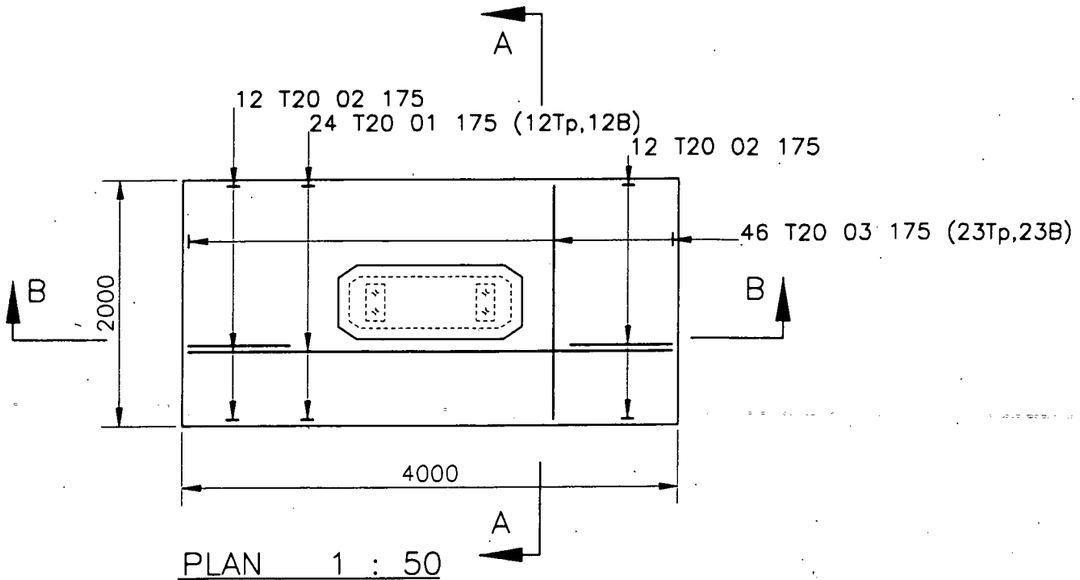
SIDE ELEVATION 1 : 50



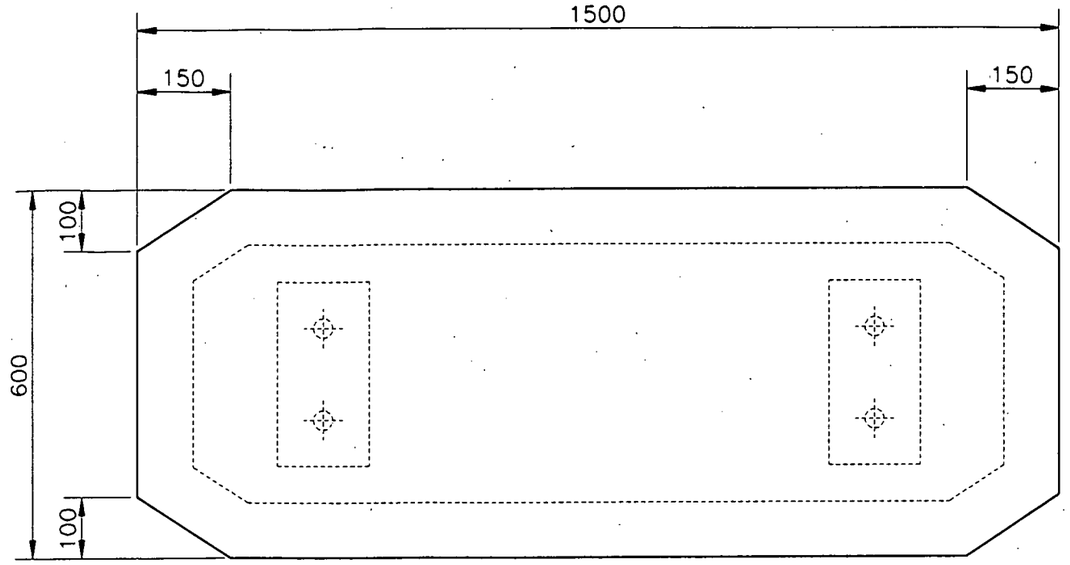
SECTION B–B 1 : 50



SECTION A–A 1 : 50



PLAN 1 : 50



KICKER DETAIL 1 : 10

GENERAL NOTES

1. This drawing and the following notes to be read in conjunction with
   a) Engineer's drawings and specifications.
   b) Architect's drawings.
   c) Services Engineer's drawings.
2. Main contractor to be responsible for checking all site dimensions.
3. Filling around foundations shall be executed in layers not exceeding 250mm in thickness. well consolidated. Fill material shall be clean granular ballast and must be approved by the Engineer.
4. Hardcore shall be good clean stone or ballast broken before placing to pass 75mm ring, and free from all rubbish.
5. Foundation sizes are designed on the basis of a safe bearing capacity of 150kN/sq.m. This must be confirmed before construction commences. Soft spots below the foundations are to be removed and made up in lean mix concrete. Soft spots below the floor slab to be upfilled as specified in 3.
6. Concrete to have a minimum crushing strength of 40N/sq.mm. at 28 days. Maximum size of aggregate to be 20mm. Ordinary Portland cement to be used.
7. No admixtures to be used.
8. Aggregate for structural concrete to have a drying shrinkage not exceeding 0.05%.
9. Contractors source of aggregate to be approved by Engineer.
10. Cover to reinforcement to be 45mm.
11. Reinforcement to be in accordance with BS 4449. Mesh fabric to be in accordance with BS4483. All mesh to be high yield unless otherwise noted on drawings.
12. The location of construction and contraction joints to be agreed with the Engineer. Maximum bay length to be 6m.
13. All workmanship to be in accordance with the relevant Clauses in the Codes of Practice and British Standards;
    Steelwork – BS 5950 Part 2 1985
    Concrete – BS 8110 Part 1 1985
    Timber – BS 5268 Part 2 1984
14. Notation:
    A.B.R. – Alternate Bars Reversed
    A.B.S. – Alternate Bars Staggered
    B. – Bottom
    E.F. – Each Face
    F.F. – Far Face
    N.F. – Near Face
    R. – Mild Steel
    T. – High Yield Steel
    TP. – Top
15. Brickwork and blockwork to have a basic crushing strength of 7N/sq.mm.
16. Mortar to be 1:3 cement:sand plus approved plasticiser.
17. Wall control joints to be at 6m max or as otherwise noted on plans.

Mk.	Revisions	By	Date
B	TOWER 64 NO LONGER AN ANCHOR BLOCK	AM	27/7/2000
A	DIMENSION AMENDED	AM	14/4/2000

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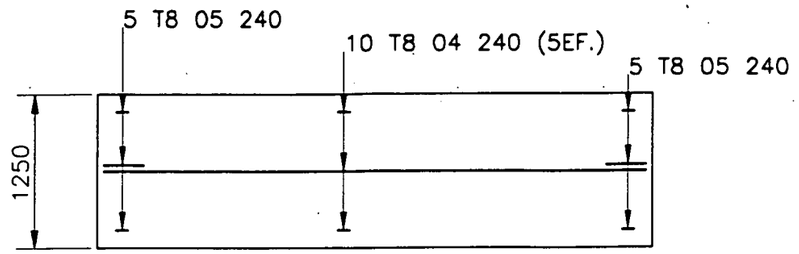
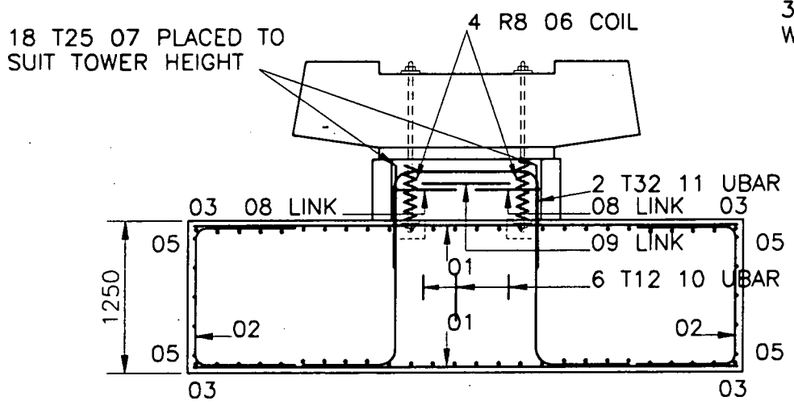
CAIRNGORM CHAIRLIFT COMPANY :-
CAIRNGORM FUNICULAR

R-C DETAILS :- 4m LONG BASE TYPE 1A
5 No. REQUIRED THUS (18,19,24,26,27&64)

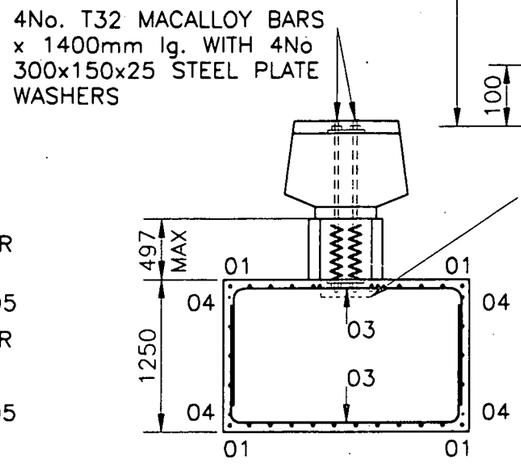
JOB No. CA 150
DRAWING No. 2/68
SCALES As shown
AMENDMENT B
DRAWN BY [redacted]
DATE 28/1/2000



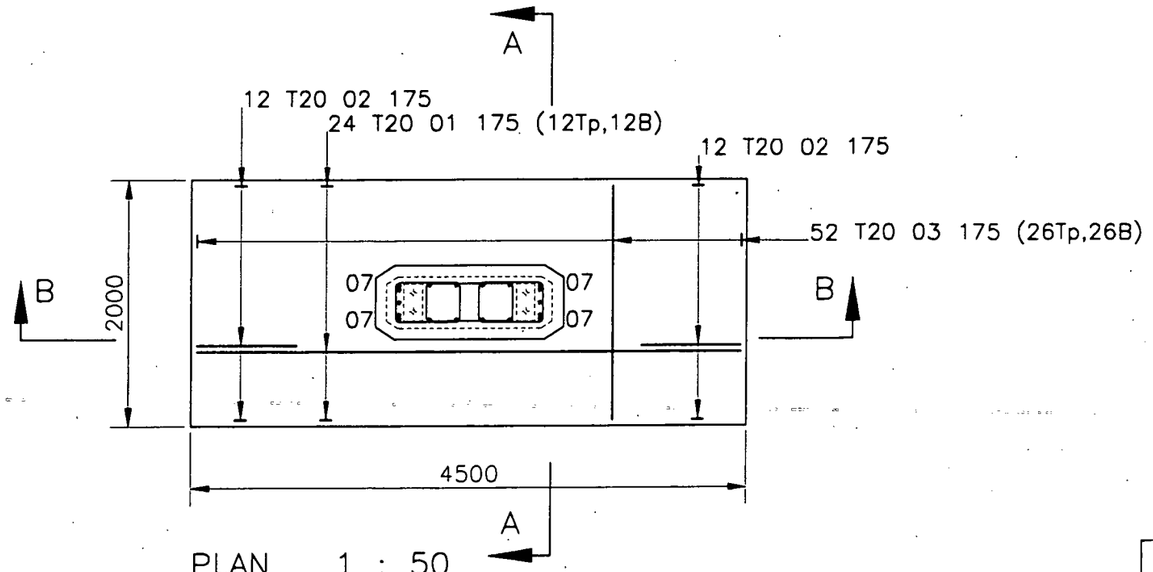
SIDE ELEVATION 1 : 50



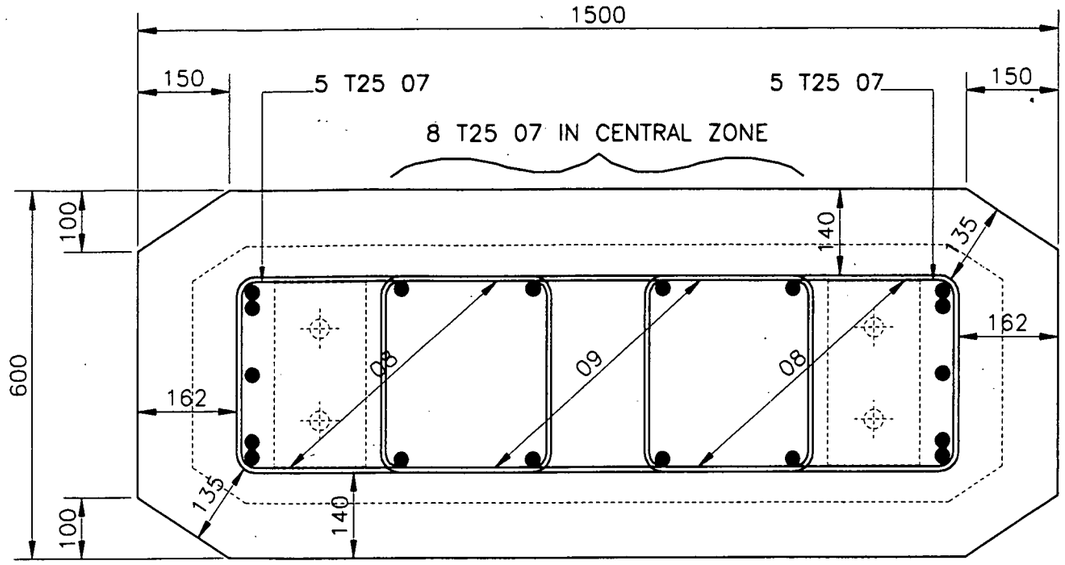
SECTION B–B 1 : 50



SECTION A–A 1 : 50



PLAN 1 : 50



KICKER DETAIL 1 : 10

GENERAL NOTES

1. This drawing and the following notes to be read in conjunction with
   a) Engineer's drawings and specifications.
   b) Architect's drawings.
   c) Services Engineer's drawings.
2. Main contractor to be responsible for checking all site dimensions.
3. Filling around foundations shall be executed in layers not exceeding 250mm in thickness. well consolidated. Fill material shall be clean granular ballast and must be approved by the Engineer.
4. Hardcore shall be good clean stone or ballast broken before placing to pass 75mm ring, and free from all rubbish.
5. Foundation sizes are designed on the basis of a safe bearing capacity of 150kN/sq.m. This must be confirmed before construction commences. Soft spots below the foundations are to be removed and made up in lean mix concrete. Soft spots below the floor slab to be upfilled as specified in 3.
6. Concrete to have a minimum crushing strength of 40N/sq.mm. at 28 days. Maximum size of aggregate to be 20mm. Ordinary Portland cement to be used.
7. No admixtures to be used.
8. Aggregate for structural concrete to have a drying shrinkage not exceeding 0.05%.
9. Contractors source of aggregate to be approved by Engineer.
10. Cover to reinforcement to be 45mm.
11. Reinforcement to be in accordance with BS 4449. Mesh fabric to be in accordance with BS4483. All mesh to be high yield unless otherwise noted on drawings.
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    Timber – BS 5268 Part 2 1984
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    B. – Bottom
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    F.F. – Far Face
    N.F. – Near Face
    R. – Mild Steel
    T. – High Yield Steel
    TP. – Top
15. Brickwork and blockwork to have a basic crushing strength of 7N/sq.mm.
16. Mortar to be 1:3 cement:sand plus approved plasticiser.
17. Wall control joints to be at 6m max or as otherwise noted on plans.

Mk.	Revisions	By	Date
B	REVISED TO RELATE TO BAR SCHEDULE	AM	19/4/00
A	NUMBERS AMENDED	AMcD	31/3/2000

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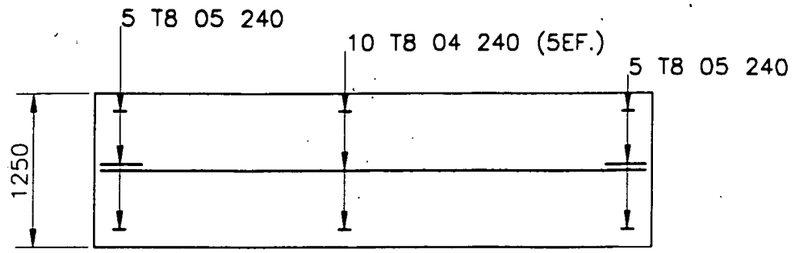
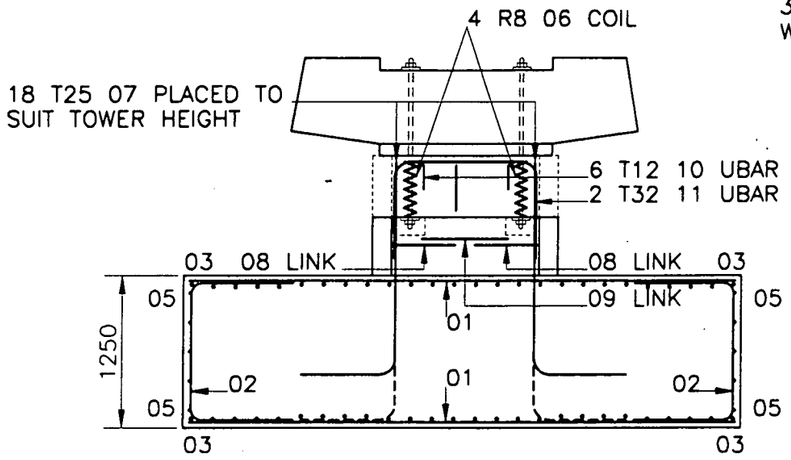
CAIRNGORM CHAIRLIFT COMPANY :-
CAIRNGORM FUNICULAR

R-C DETAILS :- 4.5m LONG BASE TYPE 2C
5 No. REQUIRED THUS (23,25,28,49,83 & 85)

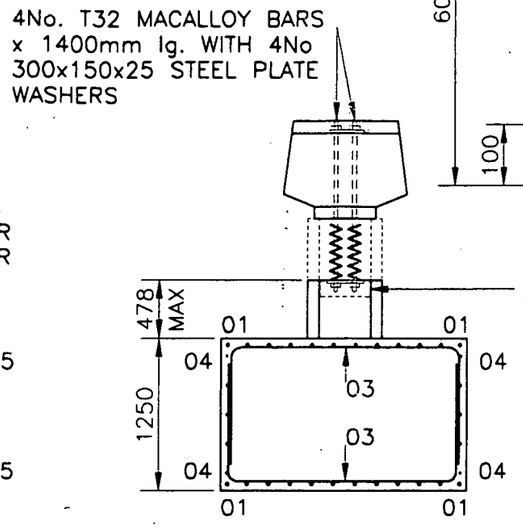
JOB No. CA 150
DRAWING No. 2/69
SCALES As shown
AMENDMENT B
DRAWN BY [redacted]
DATE 28/1/2000



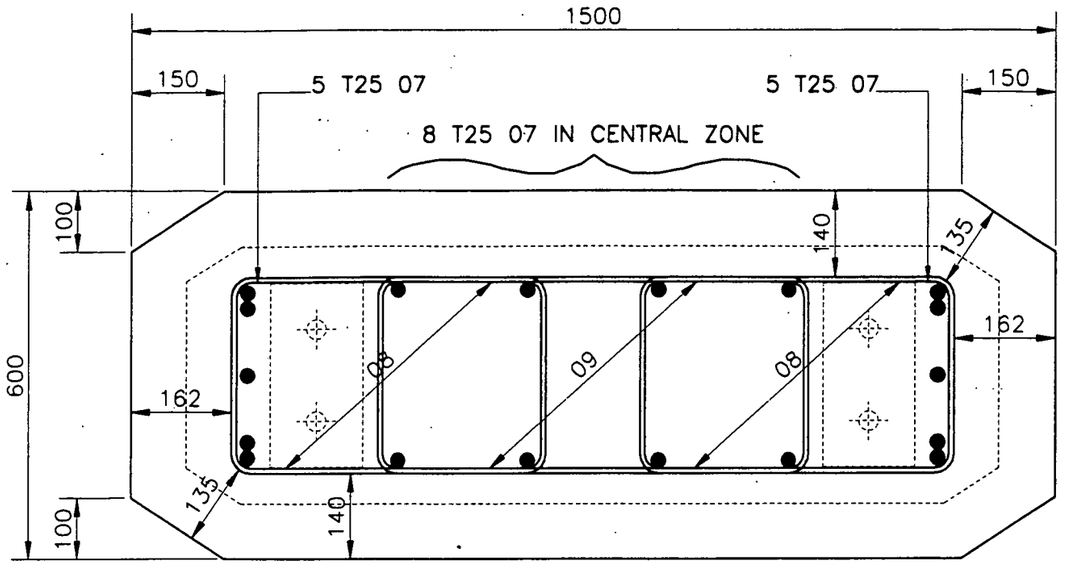
SIDE ELEVATION 1 : 50



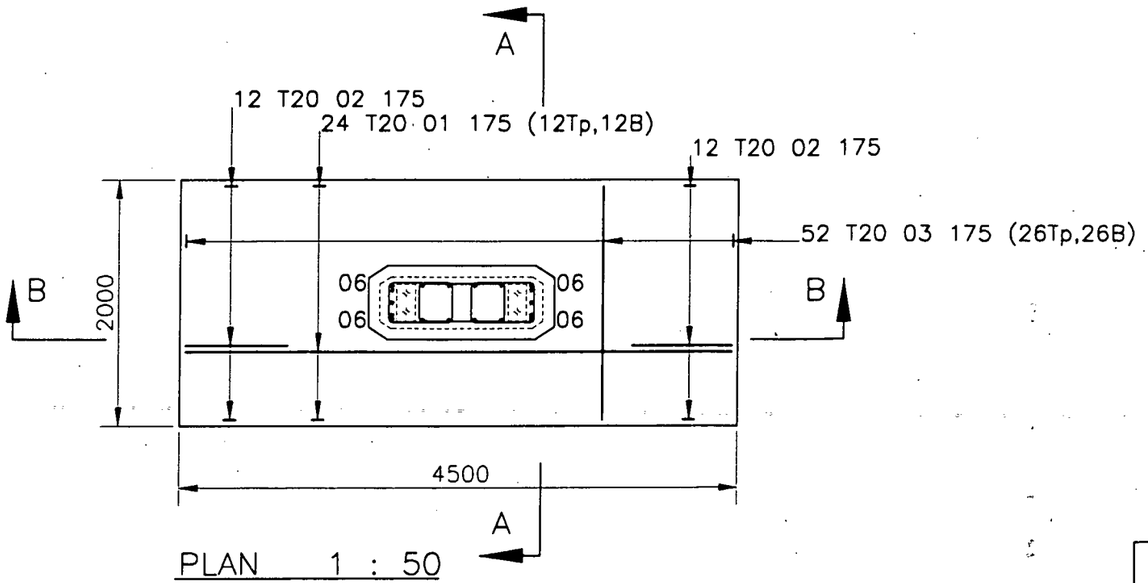
SECTION B–B 1 : 50



SECTION A–A 1 : 50



KICKER DETAIL 1 : 10



PLAN 1 : 50

GENERAL NOTES

1. This drawing and the following notes to be read in conjunction with
   a) Engineer's drawings and specifications.
   b) Architect's drawings.
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3. Filling around foundations shall be executed in layers not exceeding 250mm in thickness. well consolidated. Fill material shall be clean granular ballast and must be approved by the Engineer.
4. Hardcore shall be good clean stone or ballast broken before placing to pass 75mm ring, and free from all rubbish.
5. Foundation sizes are designed on the basis of a safe bearing capacity of 150kN/sq.m. This must be confirmed before construction commences. Soft spots below the foundations are to be removed and made up in lean mix concrete. Soft spots below the floor slab to be upfilled as specified in 3.
6. Concrete to have a minimum crushing strength of 40N/sq.mm. at 28 days. Maximum size of aggregate to be 20mm. Ordinary Portland cement to be used.
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8. Aggregate for structural concrete to have a drying shrinkage not exceeding 0.05%.
9. Contractors source of aggregate to be approved by Engineer.
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    A.B.S. – Alternate Bars Staggered
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    N.F. – Near Face
    R. – Mild Steel
    T. – High Yield Steel
    TP. – Top
15. Brickwork and blockwork to have a basic crushing strength of 7N/sq.mm.
16. Mortar to be 1:3 cement:sand plus approved plasticiser.
17. Wall control joints to be at 6m max or as otherwise noted on plans.

Mk.	Revisions	By	Date
C	TOWER 65 NOW AN ANCHOR BLOCK	AM	27/7/2000
A,B	NUMBERS AMENDED	AMcD	29/3/2000

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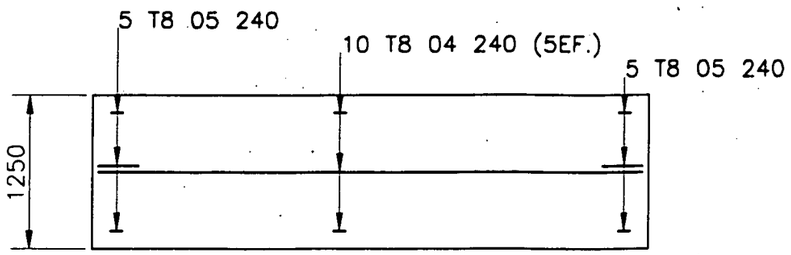
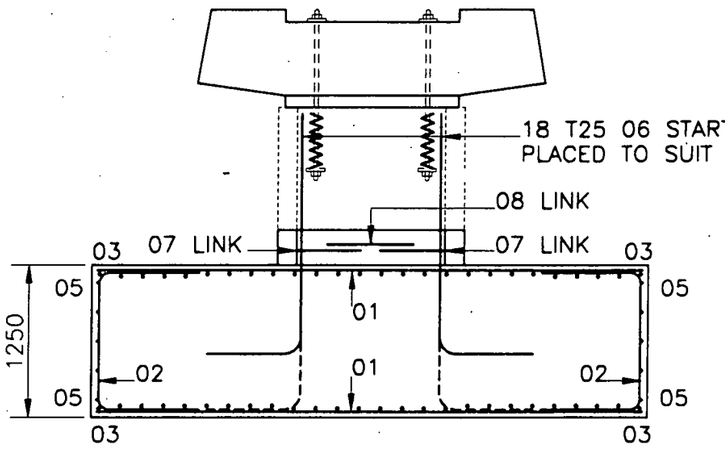
CAIRNGORM CHAIRLIFT COMPANY :-
CAIRNGORM FUNICULAR

R–C DETAILS :- 4.5m LONG BASE TYPE 2A
14 No. REQUIRED THUS (7,8,9,16,17,22,30,63,70,79,80,82&86)

JOB No.	CA 150
DRAWING No.	2/70
SCALES	As shown
AMENDMENT	C
DRAWN BY	[redacted]
DATE	28/1/2000

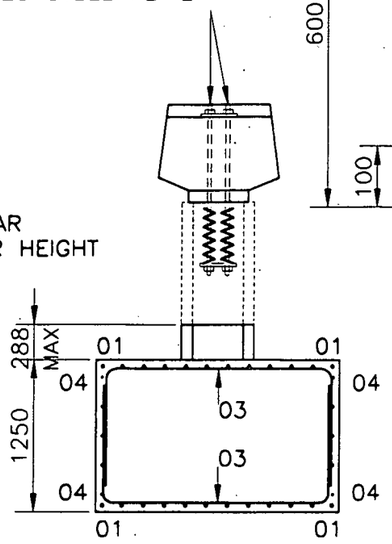


SIDE ELEVATION 1 : 50

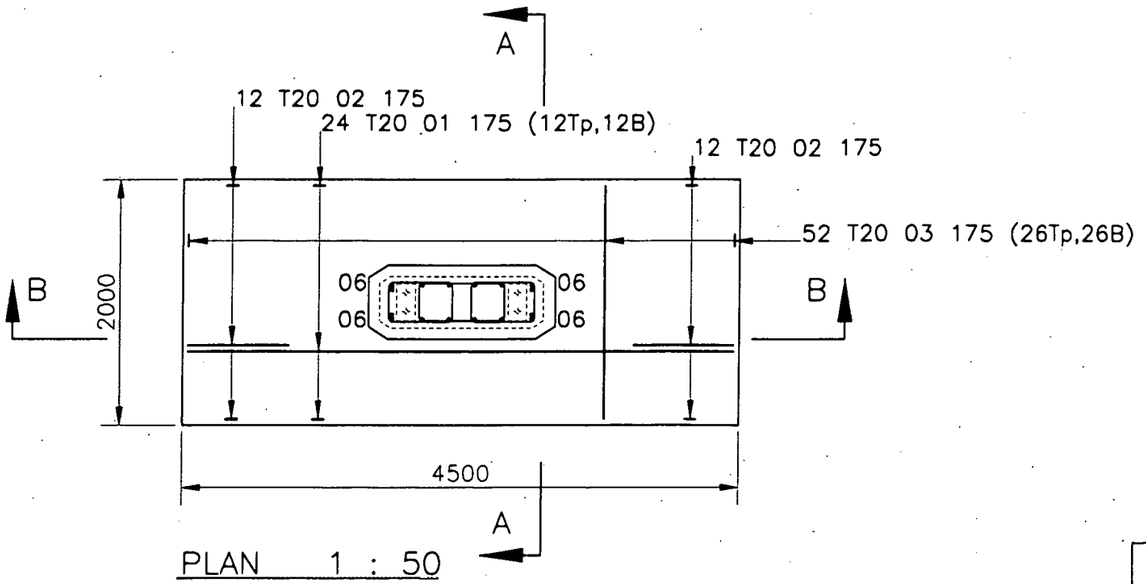


SECTION B–B 1 : 50

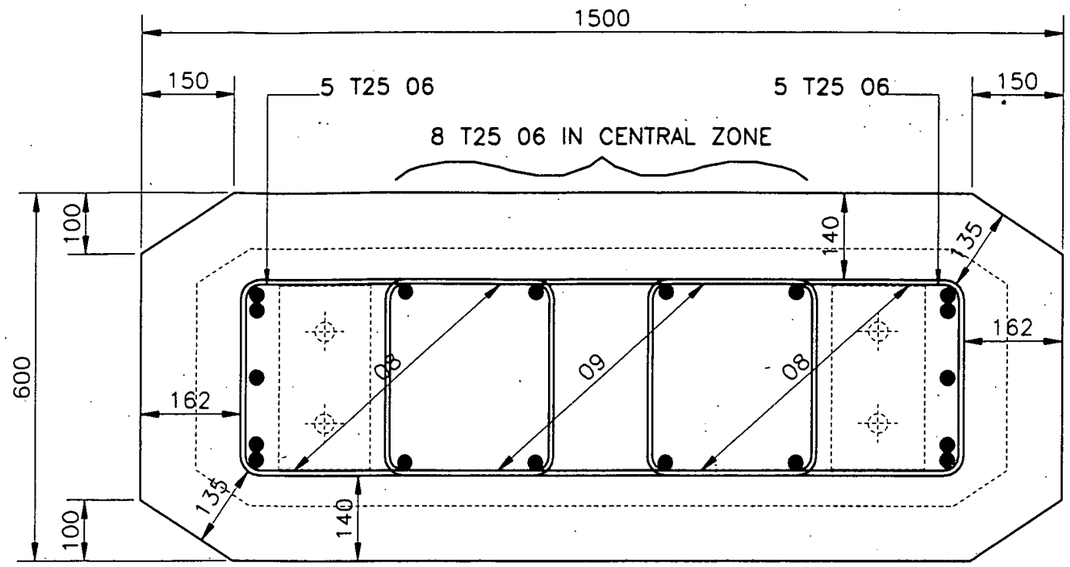
4No. T32 MACALLOY BARS x 1400mm lg. WITH 4No 300x150x25 STEEL PLATE WASHERS



SECTION A–A 1 : 50



PLAN 1 : 50



KICKER DETAIL 1 : 10

GENERAL NOTES

1. This drawing and the following notes to be read in conjunction with
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   b) Architect's drawings.
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8. Aggregate for structural concrete to have a drying shrinkage not exceeding 0.05%.
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    R. – Mild Steel
    T. – High Yield Steel
    TP. – Top
15. Brickwork and blockwork to have a basic crushing strength of 7N/sq.mm.
16. Mortar to be 1:3 cement:sand plus approved plasticiser.
17. Wall control joints to be at 6m max or as otherwise noted on plans.

Mk.	Revisions	By	Date
C	MACALLOY BAR LENGTH CORRECTED	I.L.	2/5/2000
A,B	NUMBERS AMENDED	AMcD	29/3/2000

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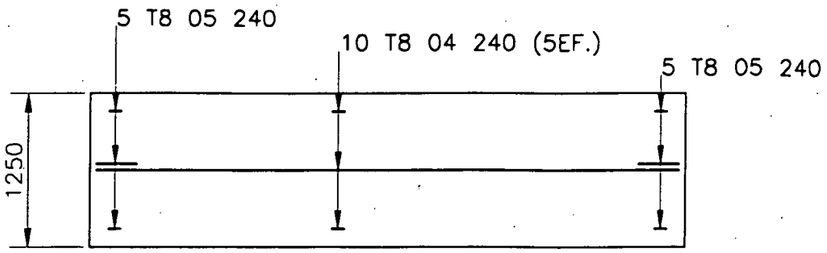
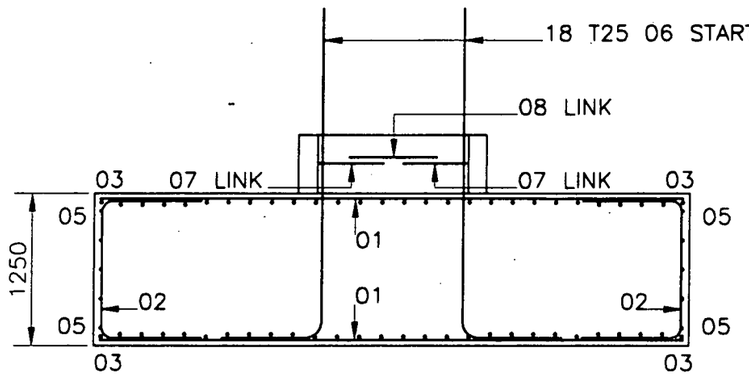
CAIRNGORM CHAIRLIFT COMPANY :-
CAIRNGORM FUNICULAR

R-C DETAILS :- 4.5m LONG BASE TYPE 2B
4 No. REQUIRED THUS (10,15,50 & 87)

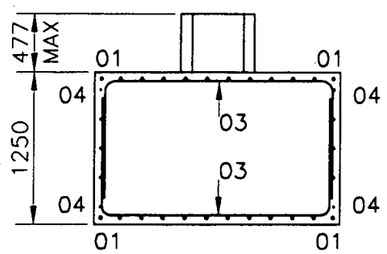
JOB No. CA 150
DRAWING No. 2/71
SCALES As shown
AMENDMENT C
DRAWN BY [redacted]
DATE 28/1/2000



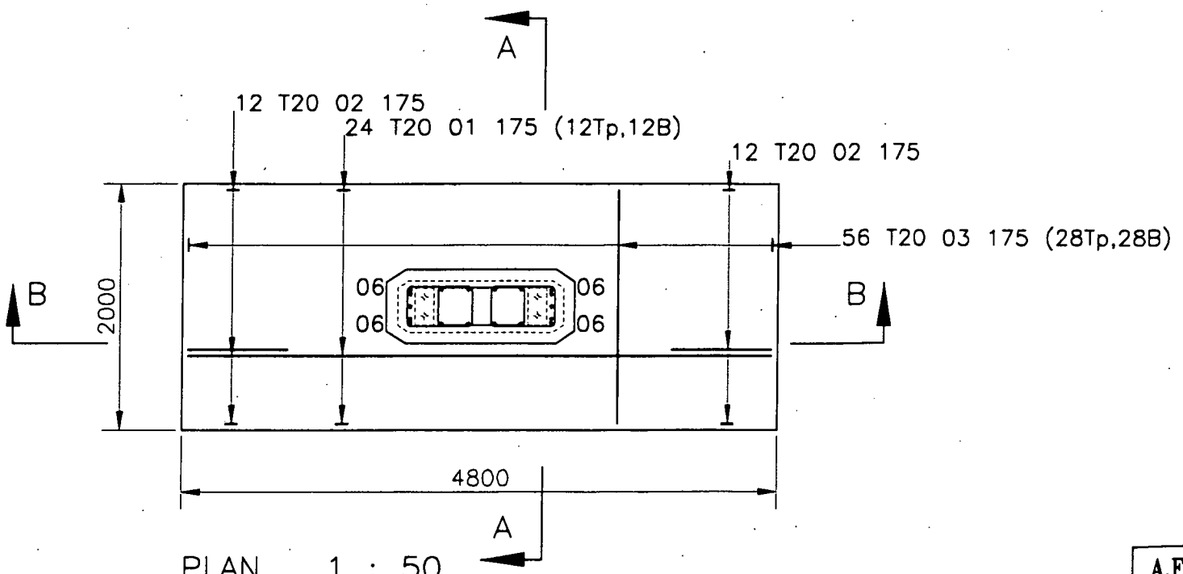
SIDE ELEVATION 1 : 50



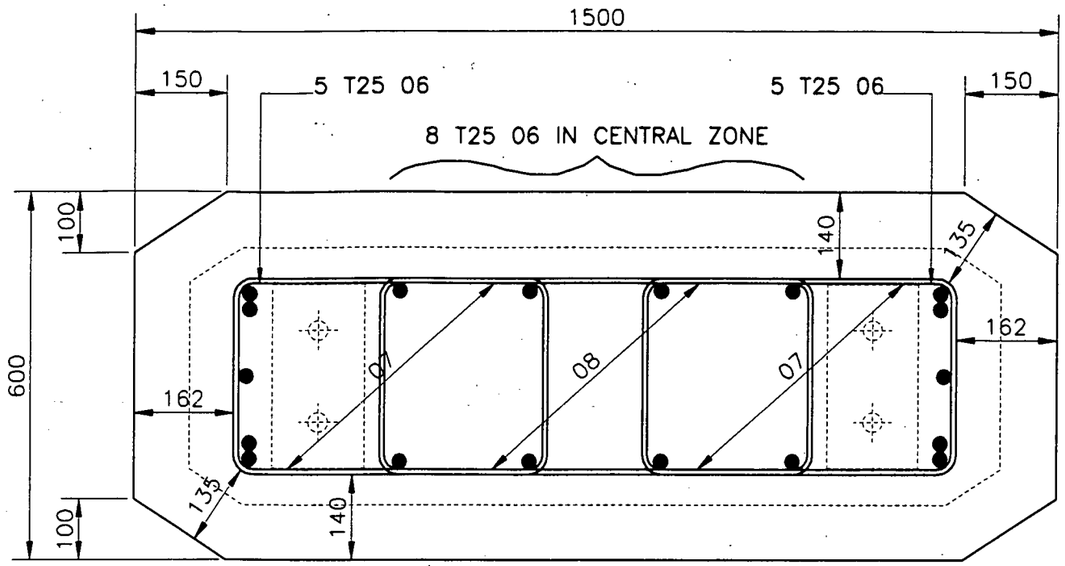
SECTION B–B 1 : 50



SECTION A–A 1 : 50



PLAN 1 : 50



KICKER DETAIL 1 : 10

GENERAL NOTES

1. This drawing and the following notes to be read in conjunction with
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   b) Architect's drawings.
   c) Services Engineer's drawings.
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    R. – Mild Steel
    T. – High Yield Steel
    TP. – Top
15. Brickwork and blockwork to have a basic crushing strength of 7N/sq.mm.
16. Mortar to be 1:3 cement:sand plus approved plasticiser.
17. Wall control joints to be at 6m max or as otherwise noted on plans.

Mk.	Revisions	By	Date
C	TOWER 0 AMENDED	AM	25/4/2000
A,B	NUMBERS AMENDED	AMcD	29/3/2000

A.F. Cruden Associates
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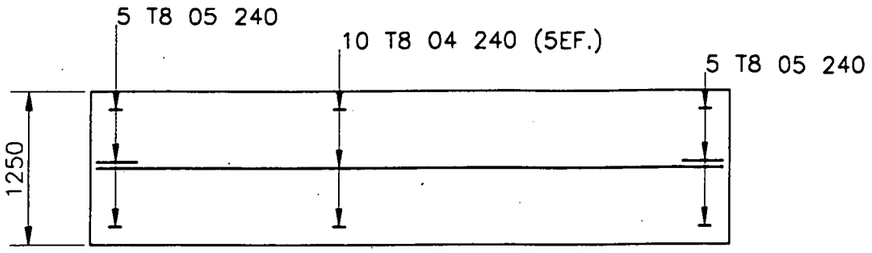
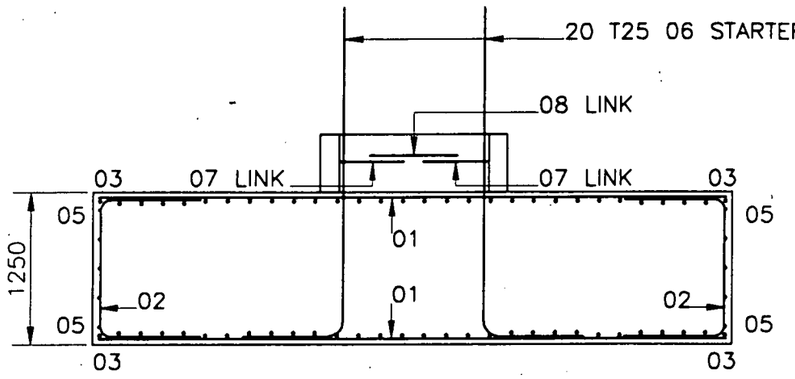
CAIRNGORM CHAIRLIFT COMPANY :-
CAIRNGORM FUNICULAR

R–C DETAILS :– 4.8m LONG BASE TYPE 3
18 No. REQUIRED THUS (4,11,12,13,20,21,31,47,50A,66,68,69,71 77,81,84,88 & 93)

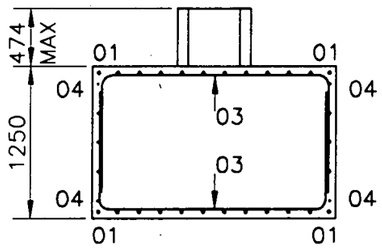
JOB No.	CA 150
DRAWING No.	2/72
SCALES	As shown
AMENDMENT	C
DRAWN BY	[redacted]
DATE	28/1/2000



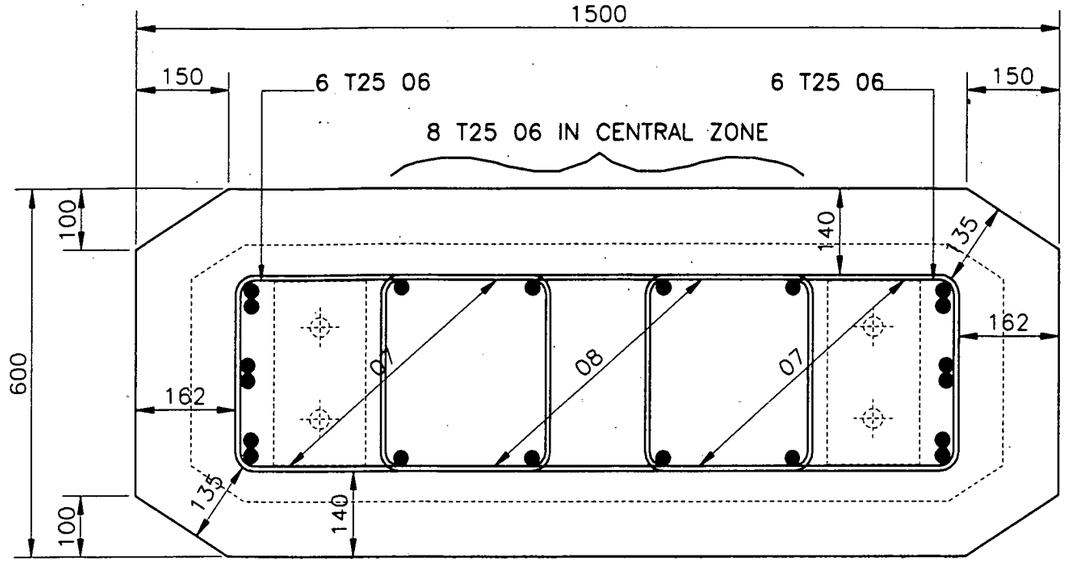
SIDE ELEVATION 1 : 50



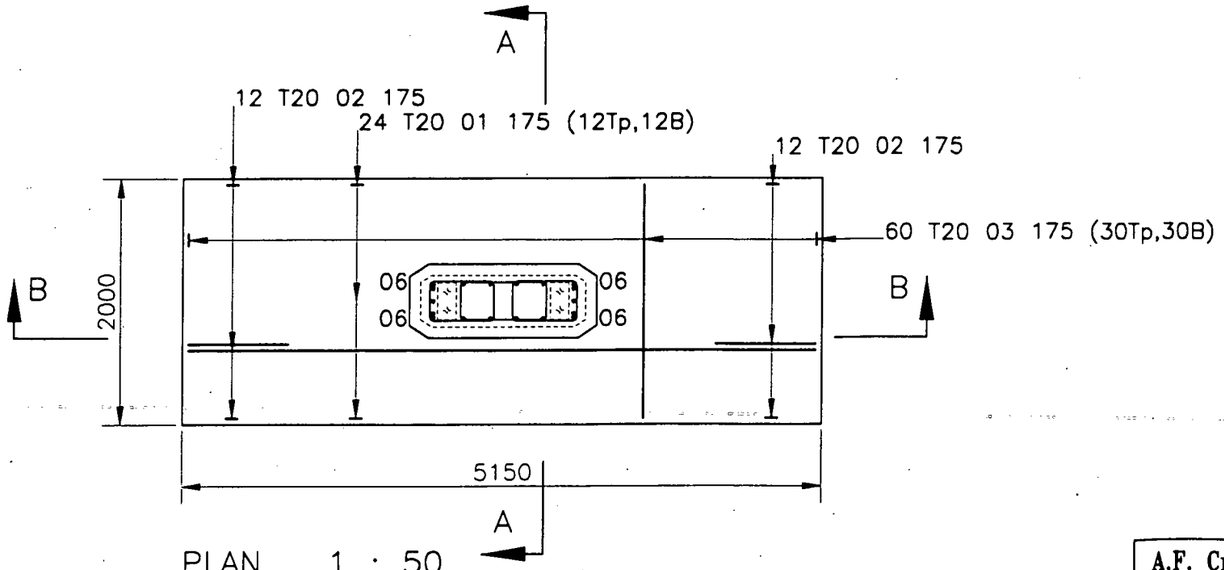
SECTION B–B 1 : 50



SECTION A–A 1 : 50



KICKER DETAIL 1 : 10



PLAN 1 : 50

GENERAL NOTES

1. This drawing and the following notes to be read in conjunction with
   a) Engineer's drawings and specifications.
   b) Architect's drawings.
   c) Services Engineer's drawings.
2. Main contractor to be responsible for checking all site dimensions.
3. Filling around foundations shall be executed in layers not exceeding 250mm in thickness. well consolidated. Fill material shall be clean granular ballast and must be approved by the Engineer.
4. Hardcore shall be good clean stone or ballast broken before placing to pass 75mm ring, and free from all rubbish.
5. Foundation sizes are designed on the basis of a safe bearing capacity of 150kN/sq.m. This must be confirmed before construction commences. Soft spots below the foundations are to be removed and made up in lean mix concrete. Soft spots below the floor slab to be upfilled as specified in 3.
6. Concrete to have a minimum crushing strength of 40N/sq.mm. at 28 days. Maximum size of aggregate to be 20mm. Ordinary Portland cement to be used.
7. No admixtures to be used.
8. Aggregate for structural concrete to have a drying shrinkage not exceeding 0.05%.
9. Contractors source of aggregate to be approved by Engineer.
10. Cover to reinforcement to be 45mm.
11. Reinforcement to be in accordance with BS 4449. Mesh fabric to be in accordance with BS4483. All mesh to be high yield unless otherwise noted on drawings.
12. The location of construction and contraction joints to be agreed with the Engineer. Maximum bay length to be 6m.
13. All workmanship to be in accordance with the relevant Clauses in the Codes of Practice and British Standards:
    Steelwork – BS 5950 Part 2 1985
    Concrete – BS 8110 Part 1 1985
    Timber – BS 5268 Part 2 1984
14. Notation:
    A.B.R. – Alternate Bars Reversed
    A.B.S. – Alternate Bars Staggered
    B. – Bottom
    E.F. – Each Face
    F.F. – Far Face
    N.F. – Near Face
    R. – Mild Steel
    T. – High Yield Steel
    TP. – Top
15. Brickwork and blockwork to have a basic crushing strength of 7N/sq.mm.
16. Mortar to be 1:3 cement:sand plus approved plasticiser.
17. Wall control joints to be at 6m max or as otherwise noted on plans.

Mk.	Revisions	By	Date
A,B	NUMBERS AMENDED	AMcD	29/3/2000

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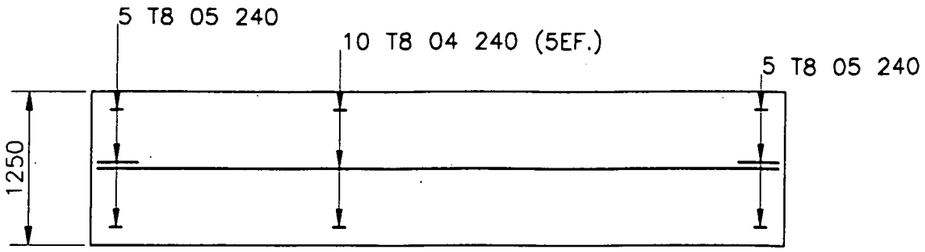
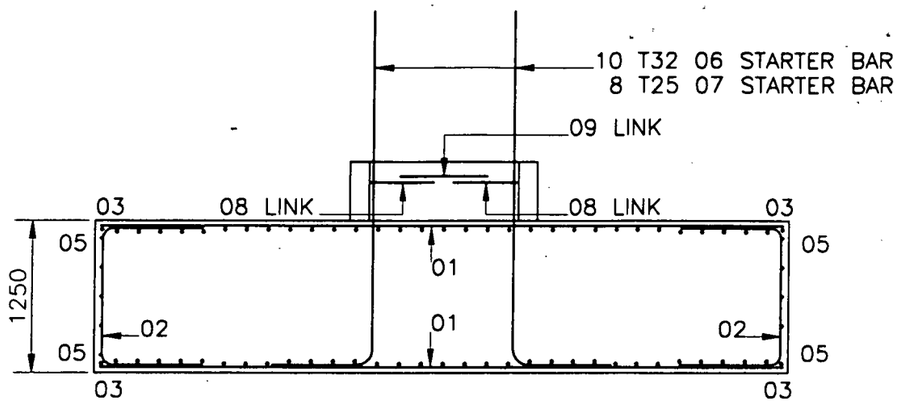
CAIRNGORM CHAIRLIFT COMPANY :-
CAIRNGORM FUNICULAR

R–C DETAILS :– 5.15m LONG BASE TYPE 4
14 No. REQUIRED THUS (6,39,40,41,42,55,58A,59,62,67 73,74,75 & 76)

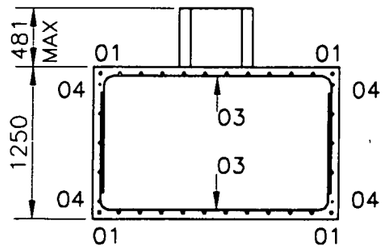
JOB No.	CA 150
DRAWING No.	2/73
SCALES	As shown
AMENDMENT	B
DRAWN BY	[redacted]
DATE	28/1/2000



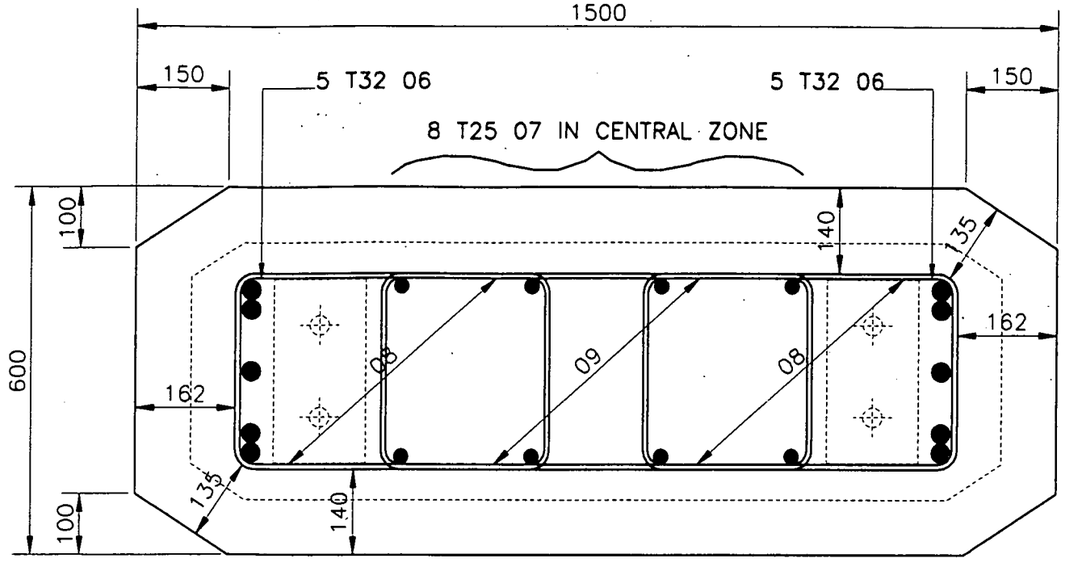
SIDE ELEVATION 1 : 50



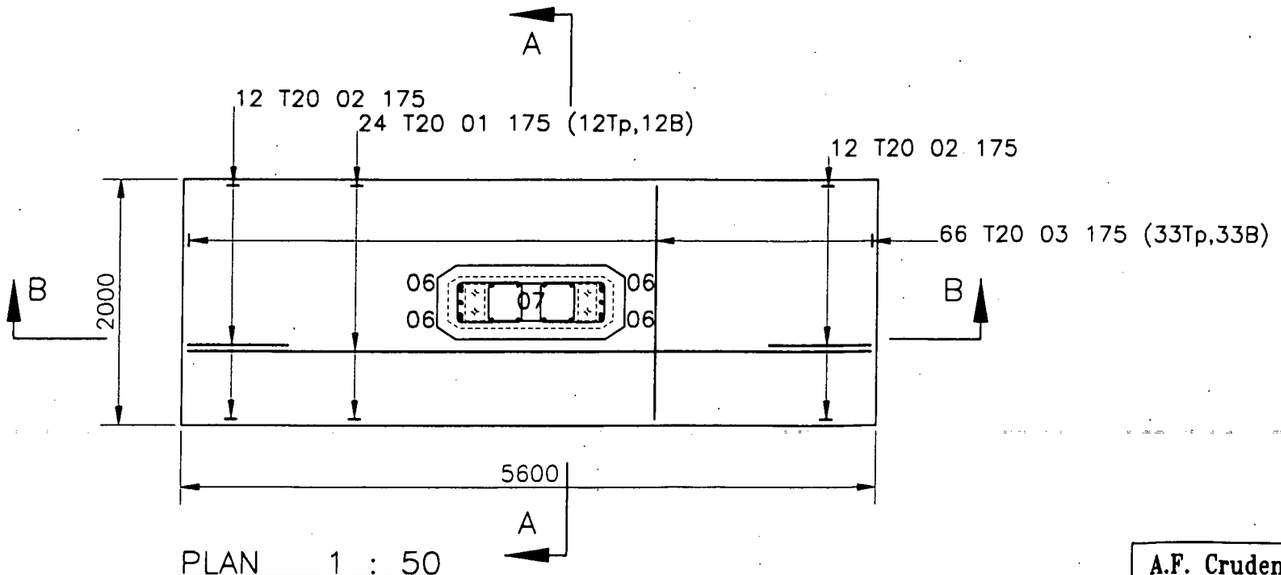
SECTION B–B 1 : 50



SECTION A–A 1 : 50



KICKER DETAIL 1 : 10



PLAN 1 : 50

GENERAL NOTES

1. This drawing and the following notes to be read in conjunction with
   a) Engineer's drawings and specifications.
   b) Architect's drawings.
   c) Services Engineer's drawings.
2. Main contractor to be responsible for checking all site dimensions.
3. Filling around foundations shall be executed in layers not exceeding 250mm in thickness. well consolidated. Fill material shall be clean granular ballast and must be approved by the Engineer.
4. Hardcore shall be good clean stone or ballast broken before placing to pass 75mm ring, and free from all rubbish.
5. Foundation sizes are designed on the basis of a safe bearing capacity of 150kN/sq.m. This must be confirmed before construction commences. Soft spots below the foundations are to be removed and made up in lean mix concrete. Soft spots below the floor slab to be upfilled as specified in 3.
6. Concrete to have a minimum crushing strength of 40N/sq.mm. at 28 days. Maximum size of aggregate to be 20mm. Ordinary Portland cement to be used.
7. No admixtures to be used.
8. Aggregate for structural concrete to have a drying shrinkage not exceeding 0.05%.
9. Contractors source of aggregate to be approved by Engineer.
10. Cover to reinforcement to be 45mm.
11. Reinforcement to be in accordance with BS 4449. Mesh fabric to be in accordance with BS4483. All mesh to be high yield unless otherwise noted on drawings.
12. The location of construction and contraction joints to be agreed with the Engineer. Maximum bay length to be 6m.
13. All workmanship to be in accordance with the relevant Clauses in the Codes of Practice and British Standards;
    Steelwork – BS 5950 Part 2 1985
    Concrete – BS 8110 Part 1 1985
    Timber – BS 5268 Part 2 1984
14. Notation:
    A.B.R. – Alternate Bars Reversed
    A.B.S. – Alternate Bars Staggered
    B. – Bottom
    E.F. – Each Face
    F.F. – Far Face
    N.F. – Near Face
    R. – Mild Steel
    T. – High Yield Steel
    TP. – Top
15. Brickwork and blockwork to have a basic crushing strength of 7N/sq.mm.
16. Mortar to be 1:3 cement:sand plus approved plasticiser.
17. Wall control joints to be at 6m max or as otherwise noted on plans.

Mk.	Revisions	By	Date
A,B	NUMBERS AMENDED	AMcD	29/3/2000

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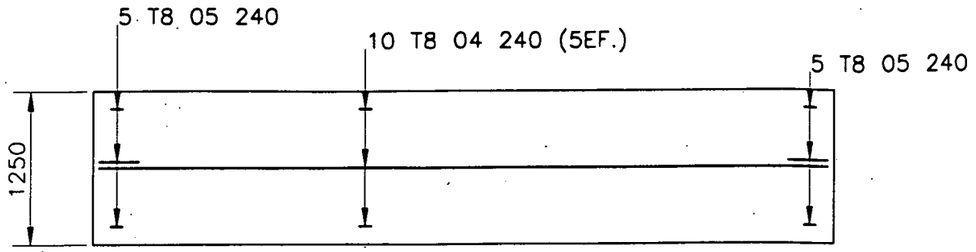
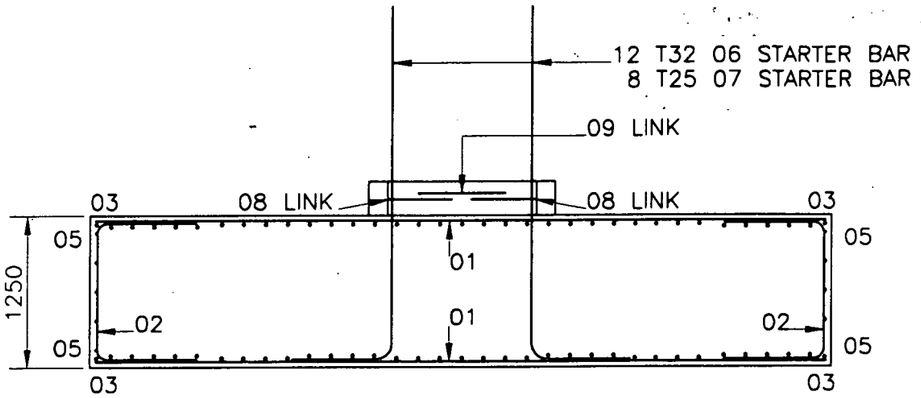
CAIRNGORM CHAIRLIFT COMPANY :-
CAIRNGORM FUNICULAR

R-C DETAILS :- 5.6m LONG BASE TYPE 5
24 No. REQUIRED THUS (1,2,5,32,33,34,35,36,37,38,43,44,45,53,54 56,57,58,60,61,72,89,90 & 92)

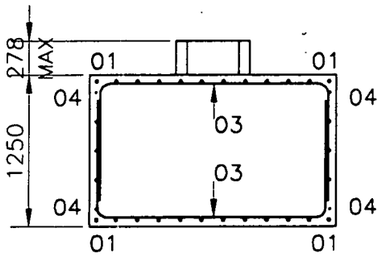
JOB No.	CA 150
DRAWING No.	2/74
SCALES	As shown
AMENDMENT	B
DRAWN BY	[redacted]
DATE	28/1/2000



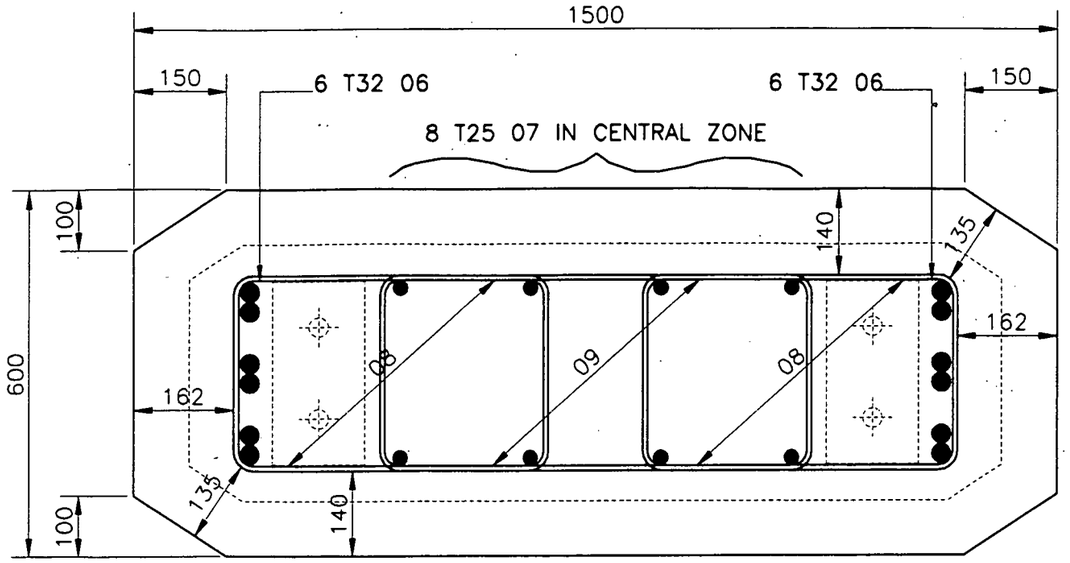
SIDE ELEVATION 1 : 50



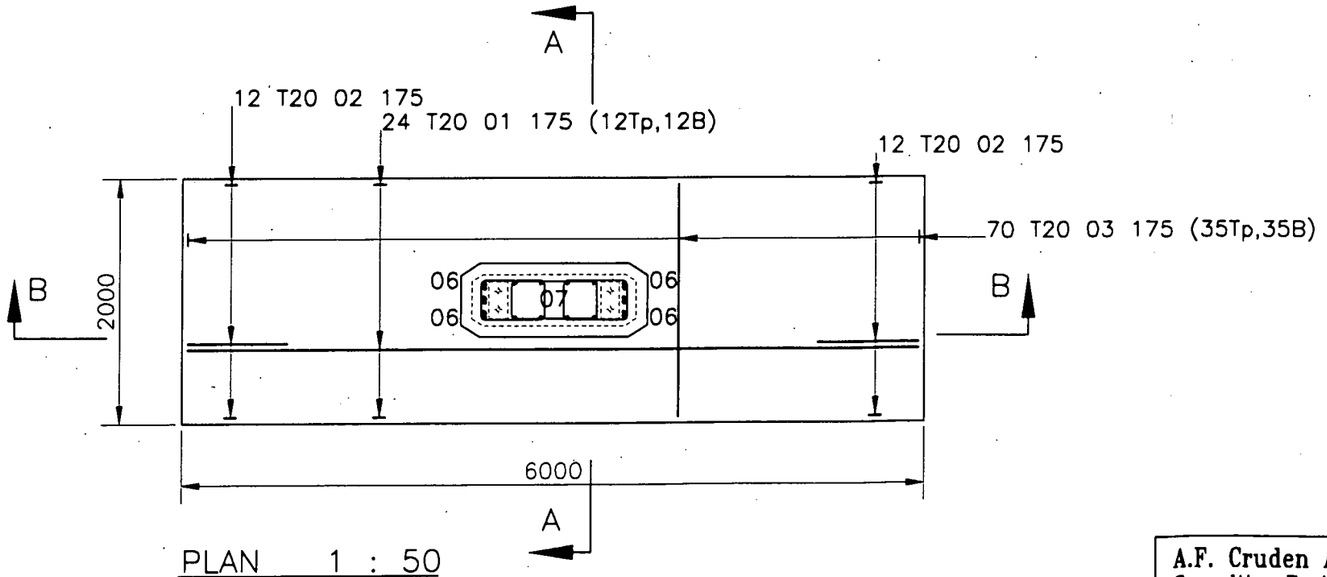
SECTION B–B 1 : 50



SECTION A–A 1 : 50



KICKER DETAIL 1 : 10



PLAN 1 : 50

GENERAL NOTES

1. This drawing and the following notes to be read in conjunction with
   a) Engineer's drawings and specifications.
   b) Architect's drawings.
   c) Services Engineer's drawings.
2. Main contractor to be responsible for checking all site dimensions.
3. Filling around foundations shall be executed in layers not exceeding 250mm in thickness. well consolidated. Fill material shall be clean granular ballast and must be approved by the Engineer.
4. Hardcore shall be good clean stone or ballast broken before placing to pass 75mm ring, and free from all rubbish.
5. Foundation sizes are designed on the basis of a safe bearing capacity of 150kN/sq.m. This must be confirmed before construction commences. Soft spots below the foundations are to be removed and made up in lean mix concrete. Soft spots below the floor slab to be upfilled as specified in 3.
6. Concrete to have a minimum crushing strength of 40N/sq.mm. at 28 days. Maximum size of aggregate to be 20mm. Ordinary Portland cement to be used.
7. No admixtures to be used.
8. Aggregate for structural concrete to have a drying shrinkage not exceeding 0.05%.
9. Contractors source of aggregate to be approved by Engineer.
10. Cover to reinforcement to be 45mm.
11. Reinforcement to be in accordance with BS 4449. Mesh fabric to be in accordance with BS4483. All mesh to be high yield unless otherwise noted on drawings.
12. The location of construction and contraction joints to be agreed with the Engineer. Maximum bay length to be 6m.
13. All workmanship to be in accordance with the relevant Clauses in the Codes of Practice and British Standards;
    Steelwork – BS 5950 Part 2 1985
    Concrete – BS 8110 Part 1 1985
    Timber – BS 5268 Part 2 1984
14. Notation:
    A.B.R. – Alternate Bars Reversed
    A.B.S. – Alternate Bars Staggered
    B. – Bottom
    E.F. – Each Face
    F.F. – Far Face
    N.F. – Near Face
    R. – Mild Steel
    T. – High Yield Steel
    TP. – Top
15. Brickwork and blockwork to have a basic crushing strength of 7N/sq.mm.
16. Mortar to be 1:3 cement:sand plus approved plasticiser.
17. Wall control joints to be at 6m max or as otherwise noted on plans.

Mk.	Revisions	By	Date
A	DIMENSION AMENDED	AM	14/4/2000

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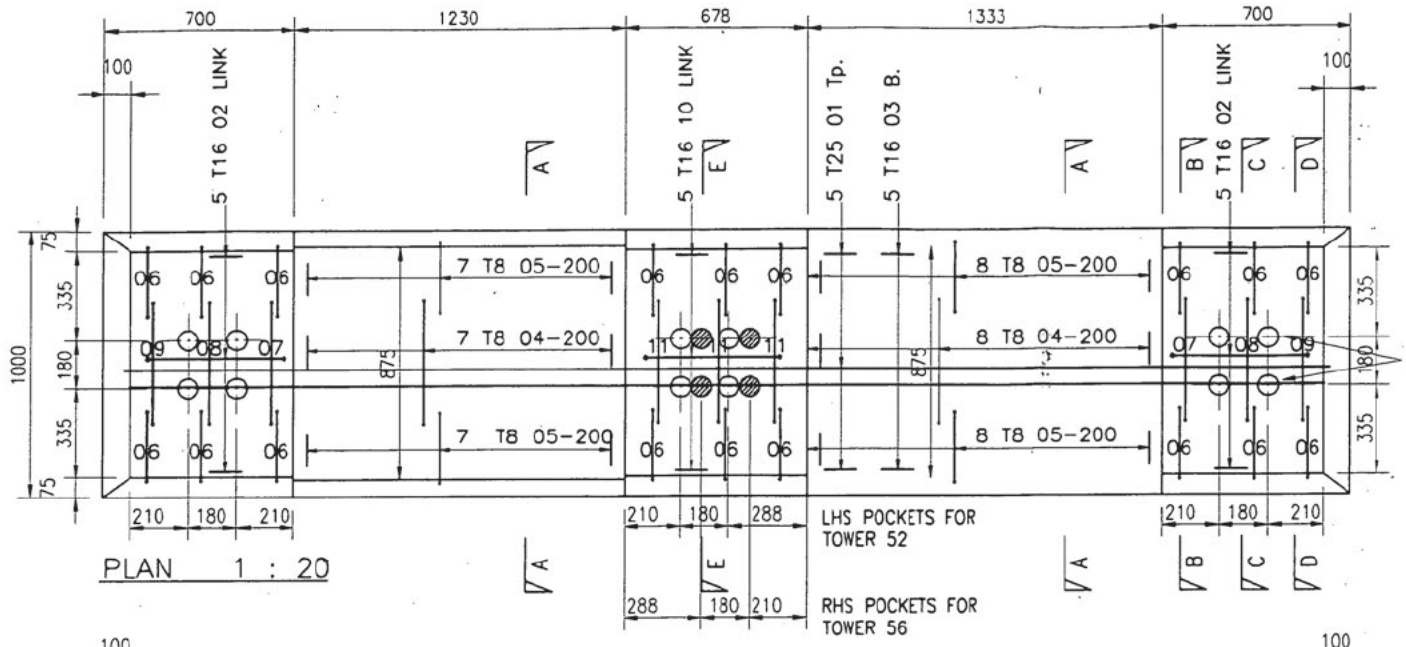
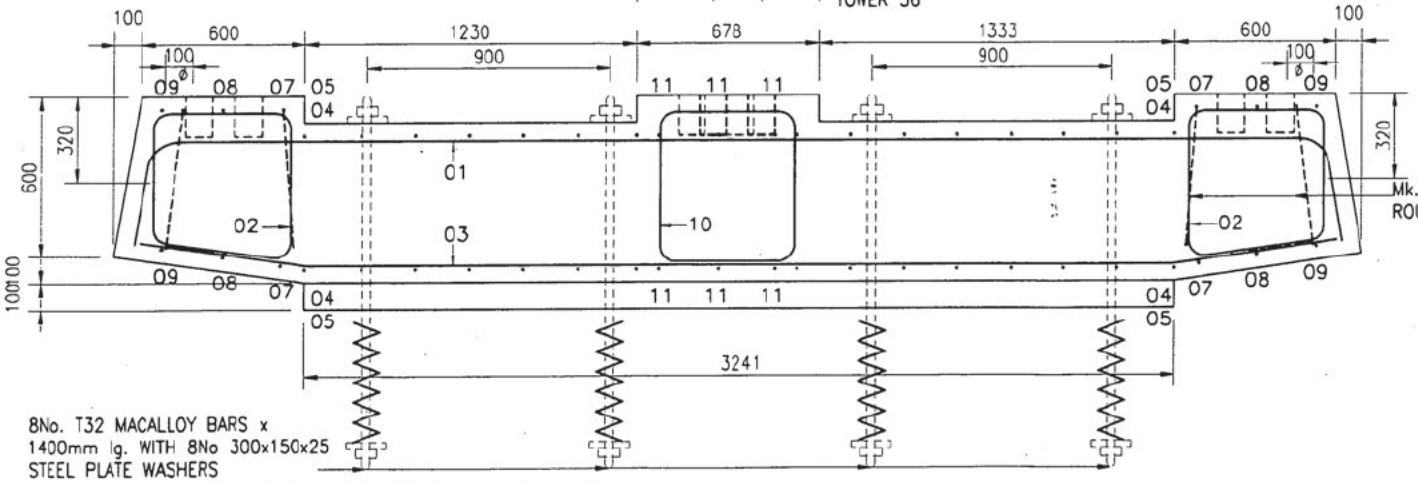
CAIRNGORM CHAIRLIFT COMPANY :-
CAIRNGORM FUNICULAR

R–C DETAILS :- 6.0m LONG BASE TYPE 6
5 No. REQUIRED THUS (3,46,51,52 & 91)

JOB No.	CA 150
DRAWING No.	2/75
SCALES	As shown
AMENDMENT	A
DRAWN BY	[redacted]
DATE	29/3/2000

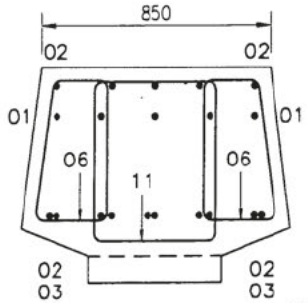


PLAN 1 : 20

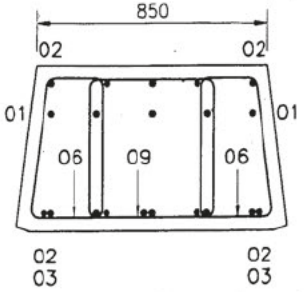


8No. T32 MACALLOY BARS x 1400mm lg. WITH 8No 300x150x25 STEEL PLATE WASHERS

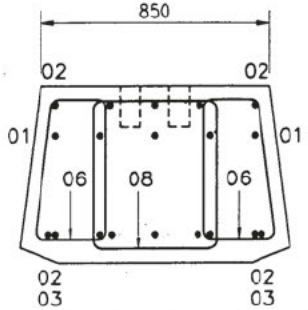
LONGITUDINAL SECTION 1 : 20



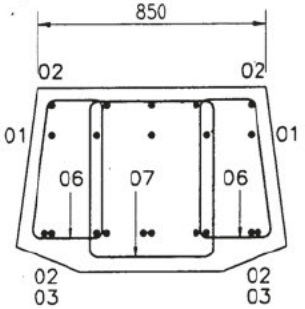
SECTION E–E 1 : 20



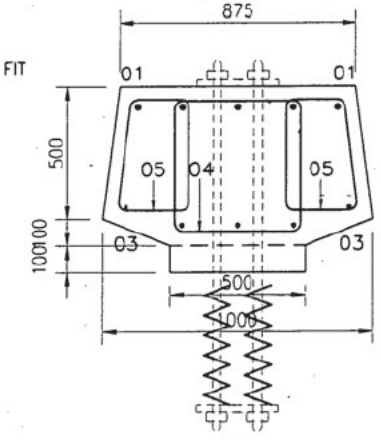
SECTION D–D 1 : 20



SECTION C–C 1 : 20

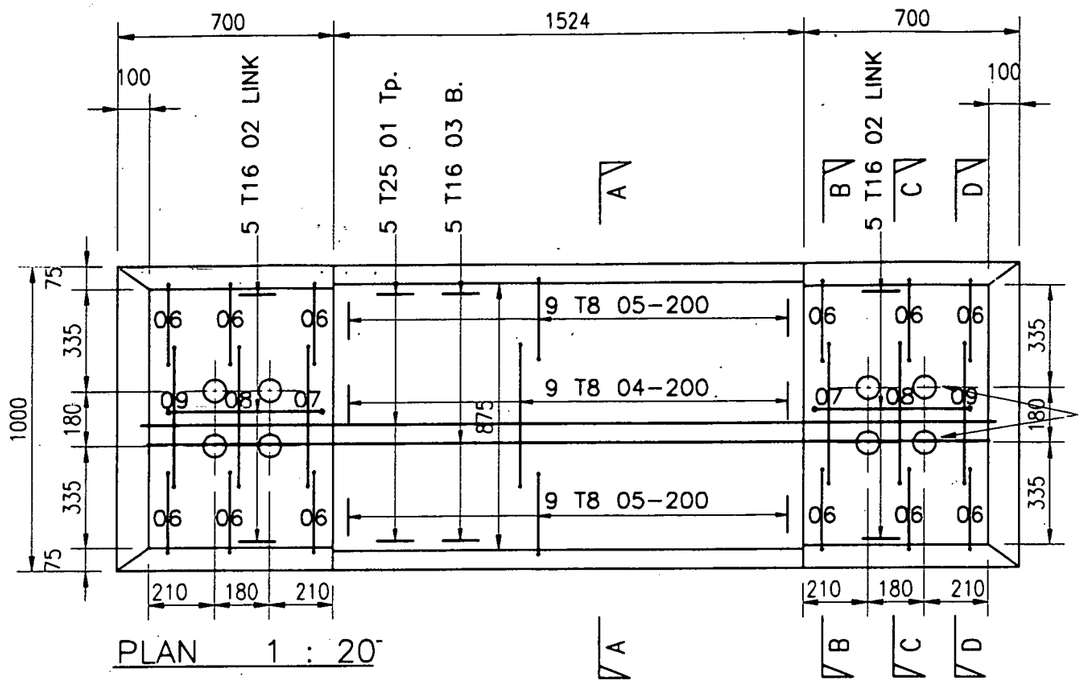


SECTION B–B 1 : 20

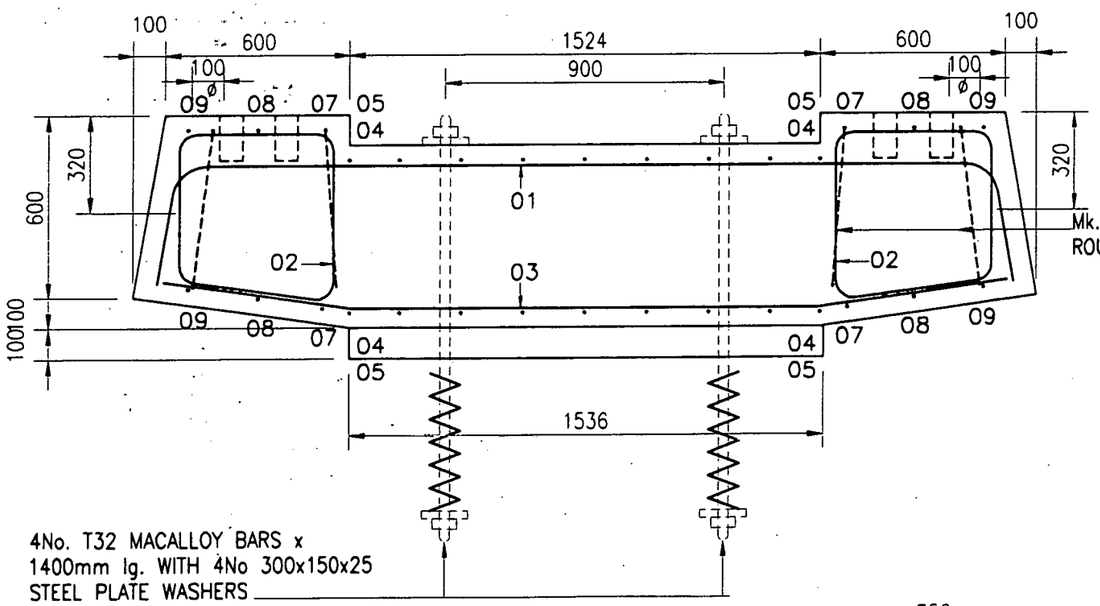


SECTION A–A 1 : 20

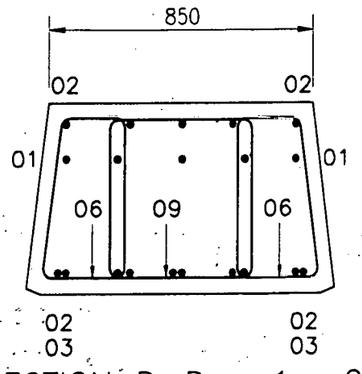
	A Amendments to central bearing seat.	AM	11/7/00
A.F. Cruden Associates Consulting Engineers 24 Bank Street Inverness IV1 1QU Telephone 01463 719200 Facsimile 01463 719201 email crudens@aol.com	CAIRNGORM CHAIRLIFT COMPANY :- CAIRNGORM FUNICULAR	JOB No.	CA 150
	R-C DETAILS CROSSHEAD 52+56 2 No. REQUIRED	DRAWING No.	2/78
		SCALES	1 : 20
		AMENDMENT	REV. A
		DRAWN BY	[redacted]
		DATE	29/6/00



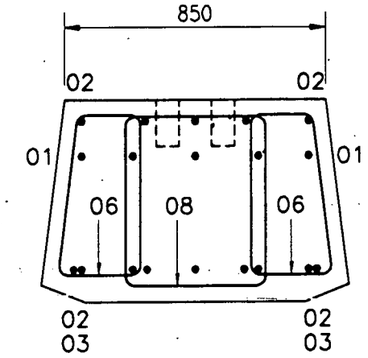
PLAN 1 : 20



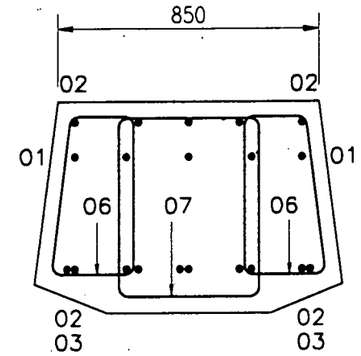
LONGITUDINAL SECTION 1 : 20



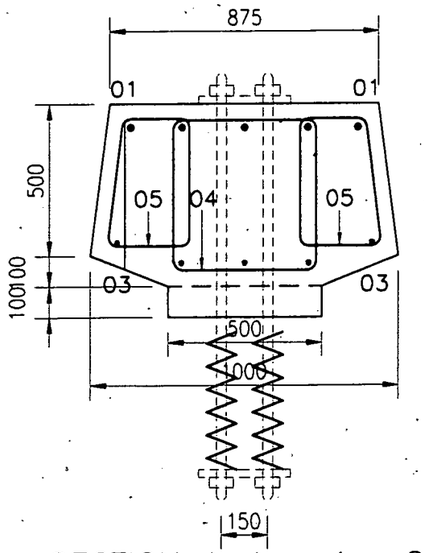
SECTION D–D 1 : 20



SECTION C–C 1 : 20



SECTION B–B 1 : 20



SECTION A–A 1 : 20

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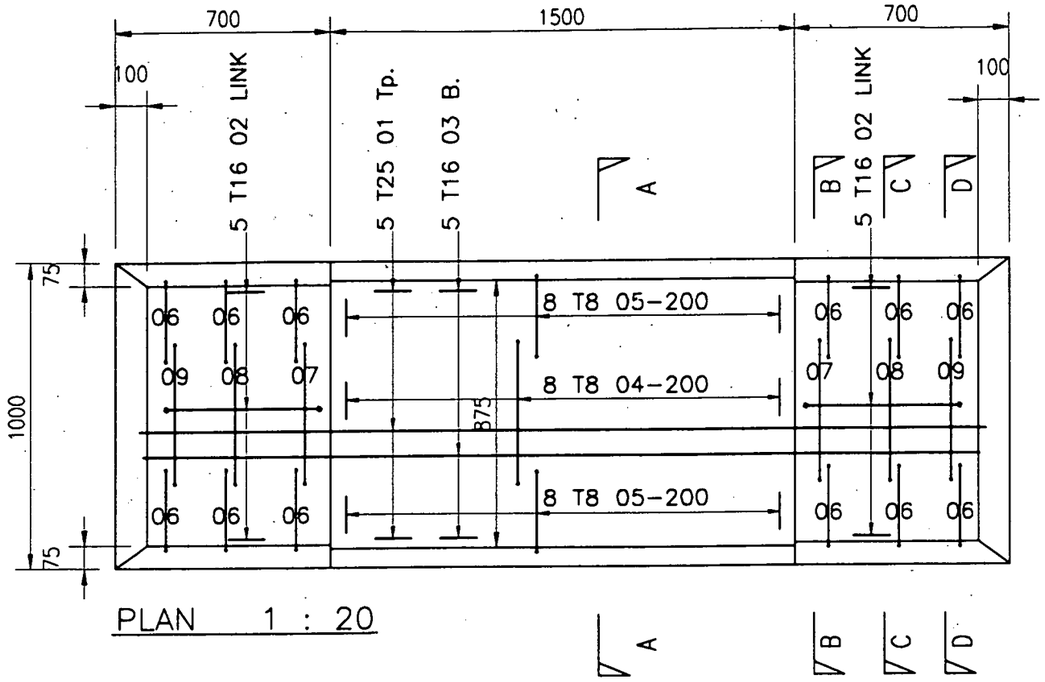
Mk.	Revisions	By	Date

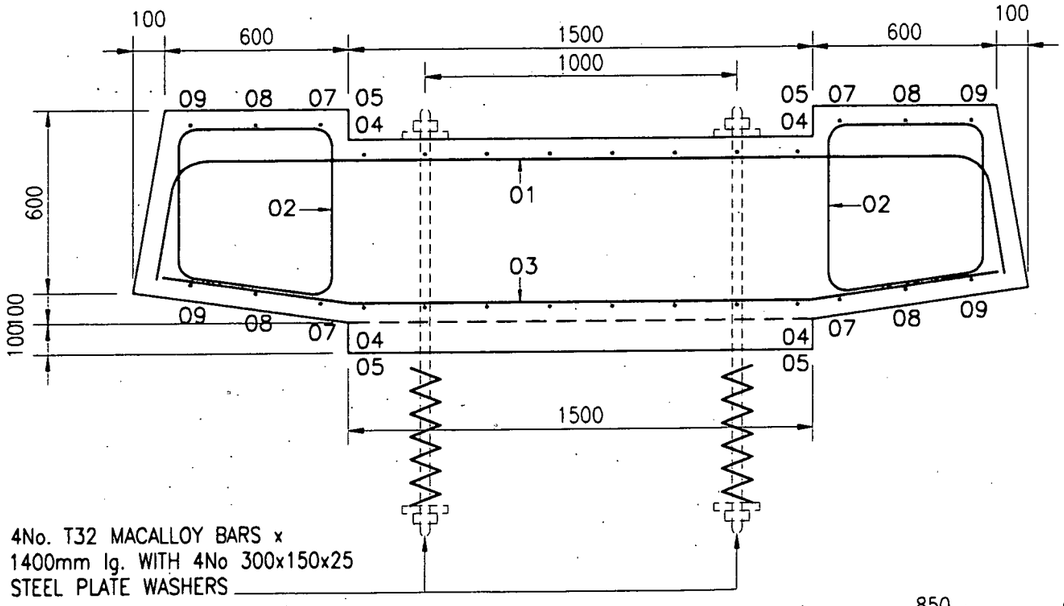
CAIRNGORM CHAIRLIFT COMPANY :-
CAIRNGORM FUNICULAR

R–C DETAILS CROSSHEAD 51
1 No. REQUIRED

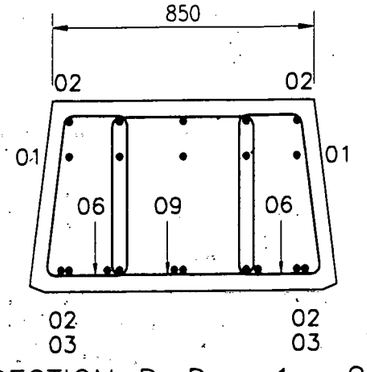
JOB No.	CA 150
DRAWING No.	2/77
SCALES	1 : 20
AMENDMENT	
DRAWN BY	
DATE	29/6/'00



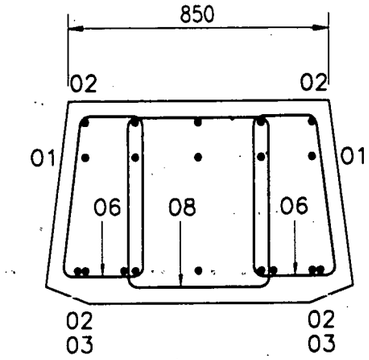
PLAN 1 : 20



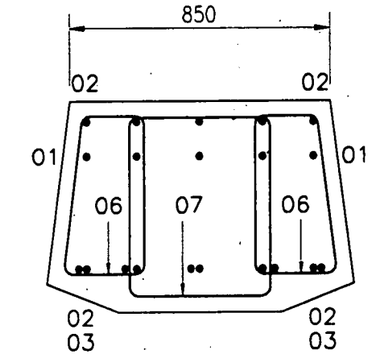
LONGITUDINAL SECTION 1 : 20



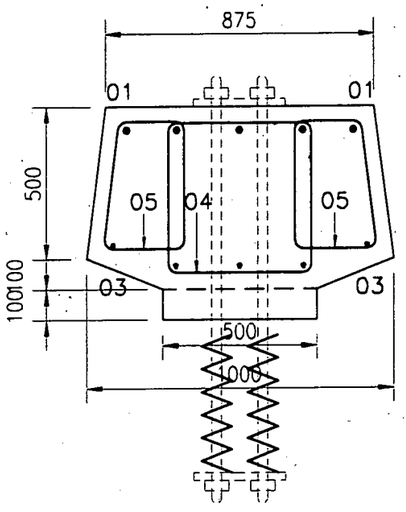
SECTION D–D 1 : 20



SECTION C–C 1 : 20



SECTION B–B 1 : 20



SECTION A–A 1 : 20

	A LENGTH AMENDED	AMcD	18/1/2000
	Mk. Revisions	By	Date

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CAIRNGORM CHAIRLIFT COMPANY :-
CAIRNGORM FUNICULAR

R–C DETAILS CROSSHEAD 1
91 No. REQUIRED THUS

JOB No.	CA 150
DRAWING No.	2/64
SCALES	1 : 20
AMENDMENT	A
DRAWN BY	
DATE	25/10/'99