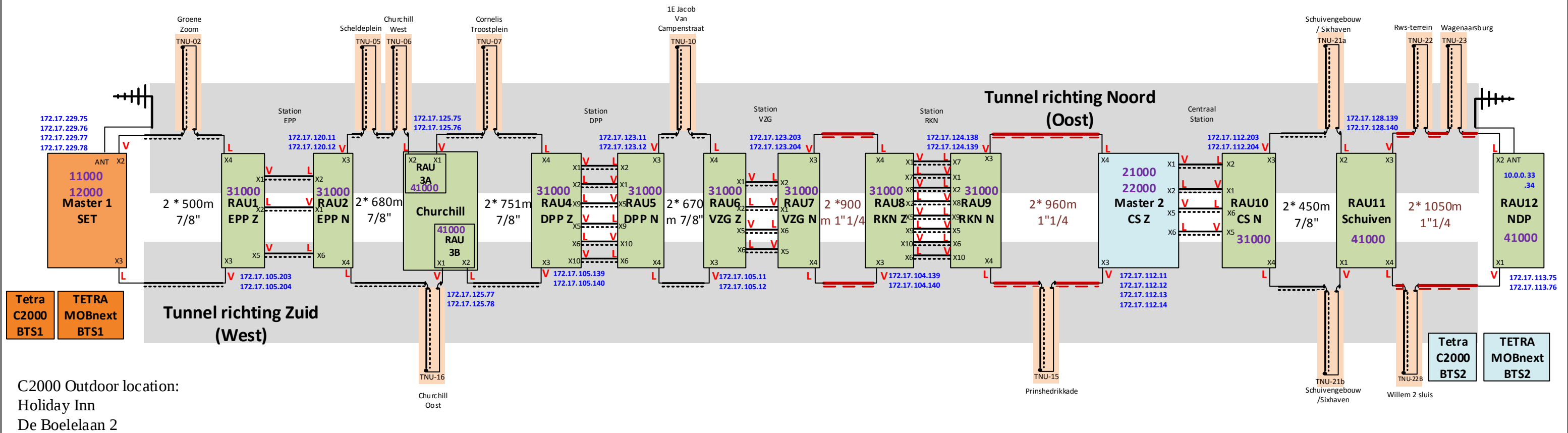


KP140-Metro Amsterdam

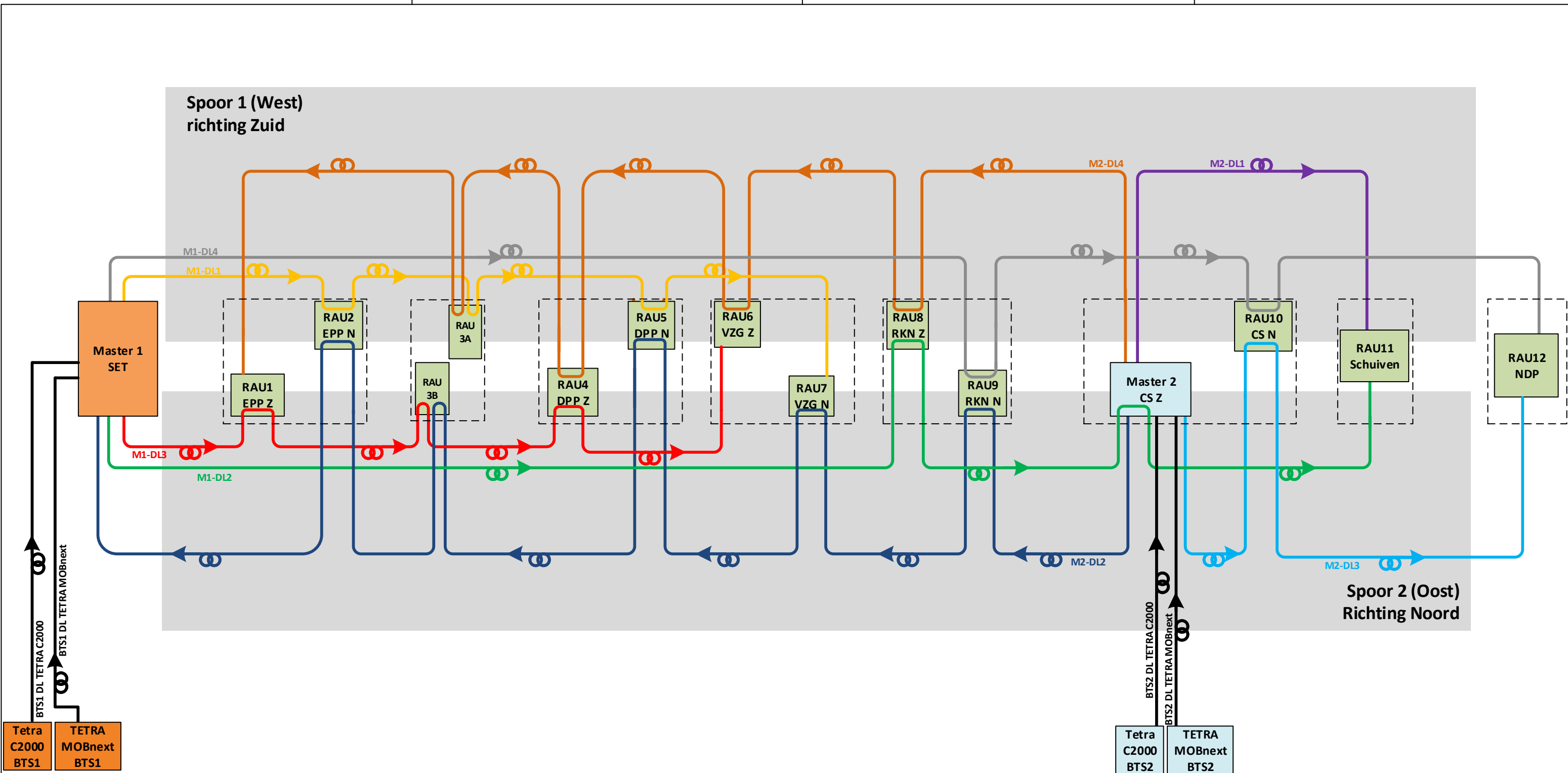


Revision	Author	Date	Modified	Added	Deleted	Check	Check Date	Revision note
5.0	GM	23-04-13	001,002					Optical Layout updated
6.2	GM	14-10-13	001					Updated layout
8.0	GM	29-10-13	000					Added antennas for HO
9.0	GM	16-01-14	000					Removed TB in tunnel/ Added output ports
13.0	GM	04-03-14	001,002					Optical Layout updated
15.0	AR	15-06-15	All					Added output ports + Removed CC500
15.1	AR	16-07-15	000					Detail for VSWR & Load + Type of cabinet
16.0	AR	12-02-16	All					number of RF ports + ALC-10 + AMCE As-Built
16.1	VV	14-09-16	003, 004, 005 --- All --- 000, 005, 006d	003b --- / --- /				Potential modification of optical coupling between BTS & Master --- Replacement of MPT1327 by TETRA GVB --- 5th RF output removed: one loop has been identified as useless following VIA, who considers that the small zones where there is a lack of coverage are not critical
16.2	VV	25-04-17	All		003, 003b	PM	26-04-17	As-built drawings.
16.2	VV	04-07-17	004, 005, 006x, 007x			PM	26-04-17	As-built drawings after tuning of end of June.
16.3	PM	21-11-17	000					Identification of the RF ports
16.4	AOZ	17-03-21	004, 005, 006x, 007x					As-built drawings 2021



Rev16.3

Project			Company		
Metro Amsterdam NZ Lijn			see Telecom		
Description					
Coax en Straalkabels					
Drawing number	Drawn	Date	App.	Date	Scale
000					NA



Single mode optical fibers

 M1-DL1

 M1-DL2

 M1-DL3

 M1-DL4

 M2-DL1

 M2-DL2

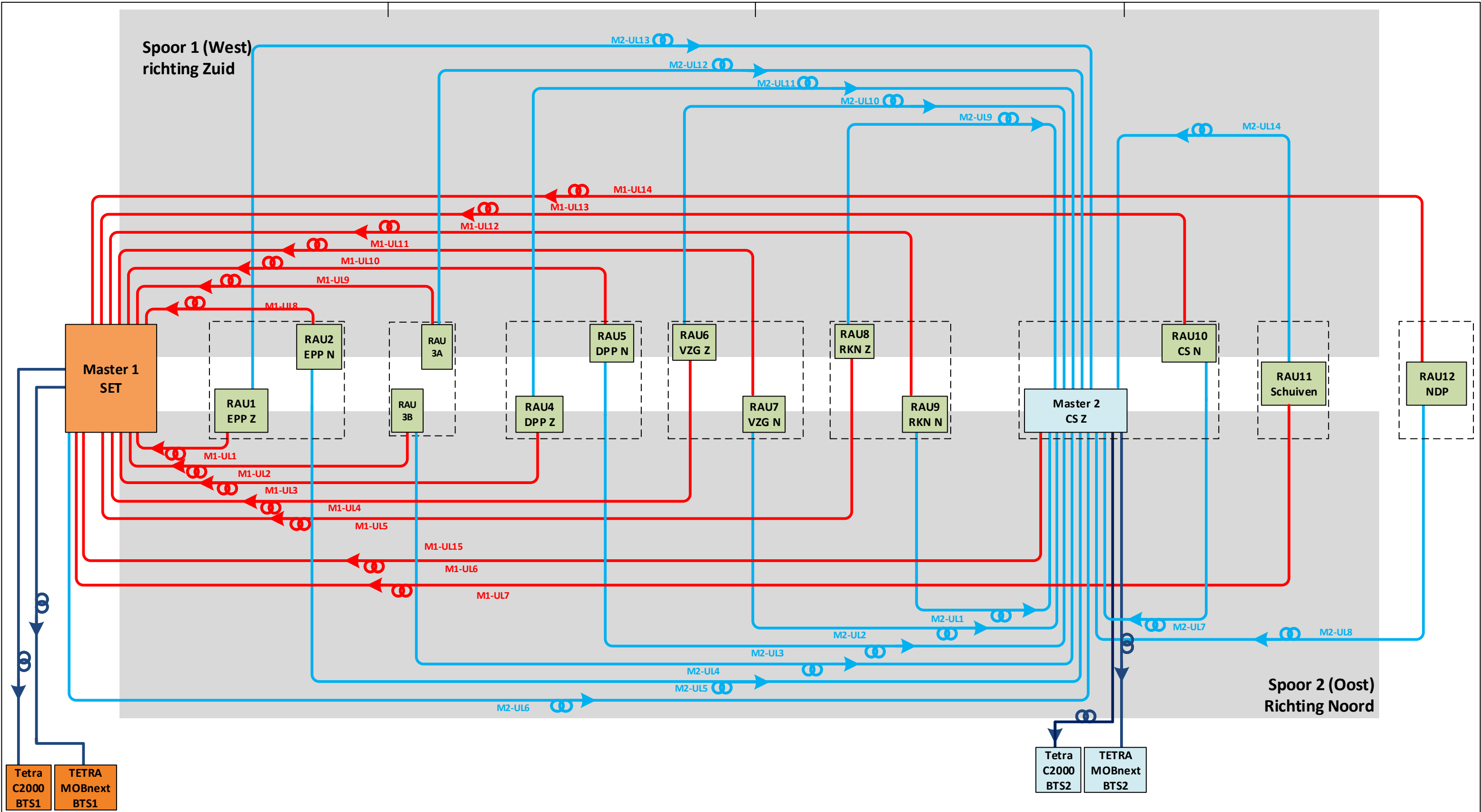
 M2-DL3

 M2-DL4

 BTS1 /2 DL

Rev16.3

Project			Company			
Metro Amsterdam NZ Lijn			see Telecom			
Description			Glasvezels DL en Straalkabels			
Drawing number	Drawn	Date	App.	Date	Scale	
001					NA	



Single mode optical fibers

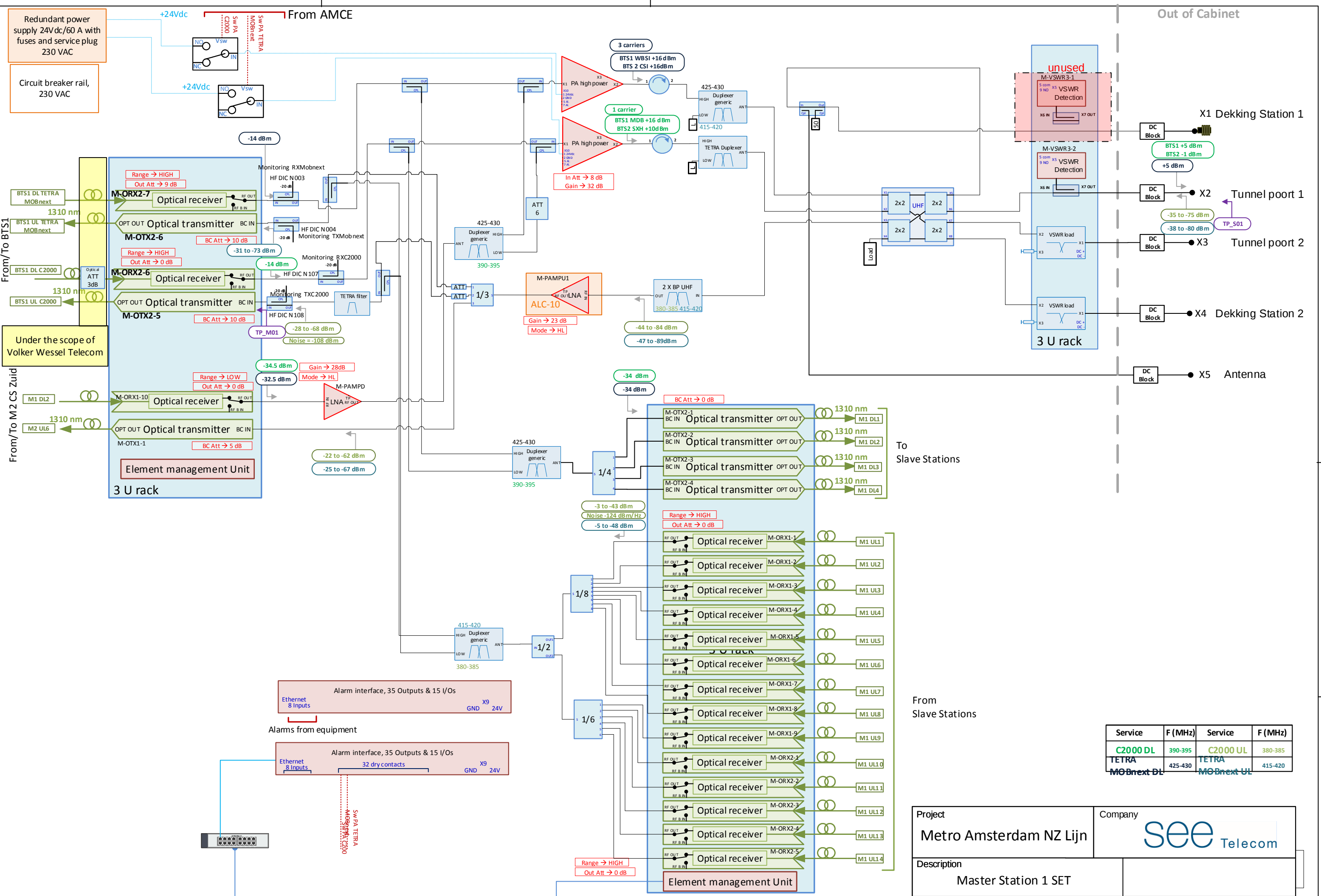
M1-ULn

M2-ULn

BTS1 /2 UL

Rev16.3

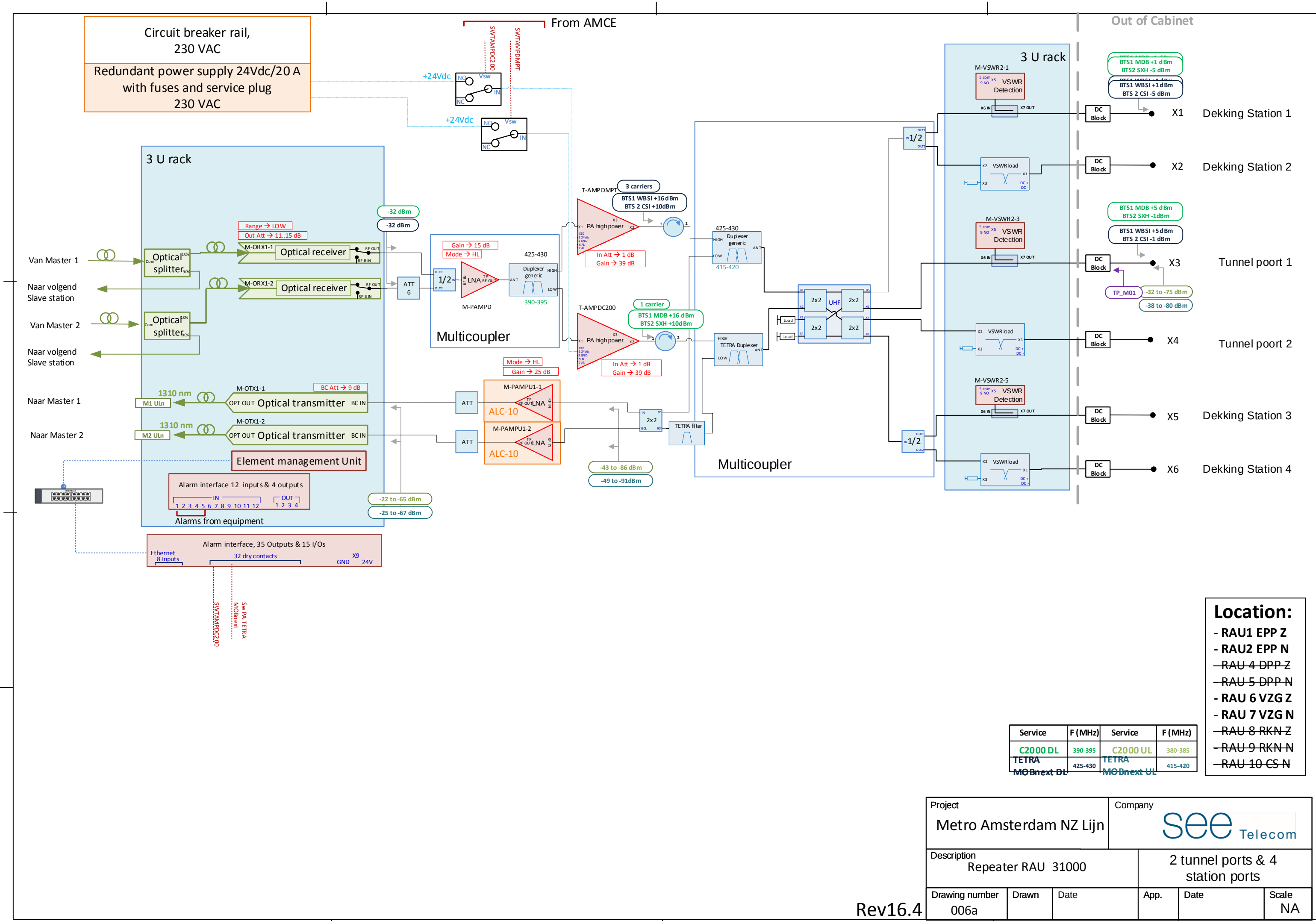
Project			Company		
Metro Amsterdam NZ Lijn			see Telecom		
Description					
Glasvezels UL					
Drawing number	Drawn	Date	App.	Date	Scale
002					NA



Service	F (MHz)	Service	F (MHz)
C2000 DL	390-395	C2000 UL	380-385
TETRA	425-430	TETRA	415-420
MOBnext DL		MOBnext UL	

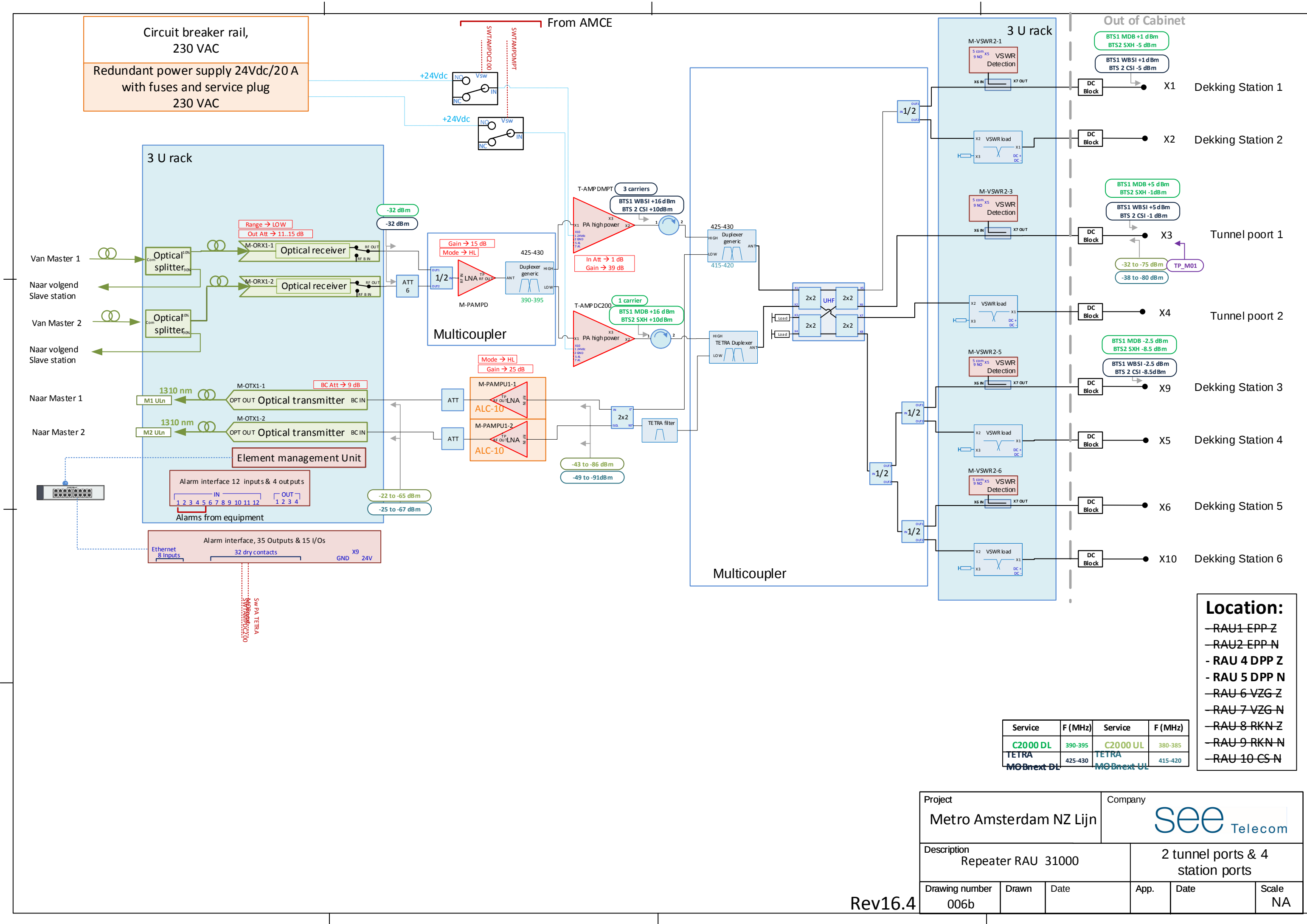
Project			Company			
Metro Amsterdam NZ Lijn			see Telecom			
Description			Master Station 1 SET			
Drawing number	Drawn	Date	App.	Date	Scale	
004					NA	

Rev16.4



Rev16.4

Project			Company		
Metro Amsterdam NZ Lijn			see Telecom		
Description			2 tunnel ports & 4 station ports		
Repeater RAU 31000					
Drawing number	Drawn	Date	App.	Date	Scale
006a					NA

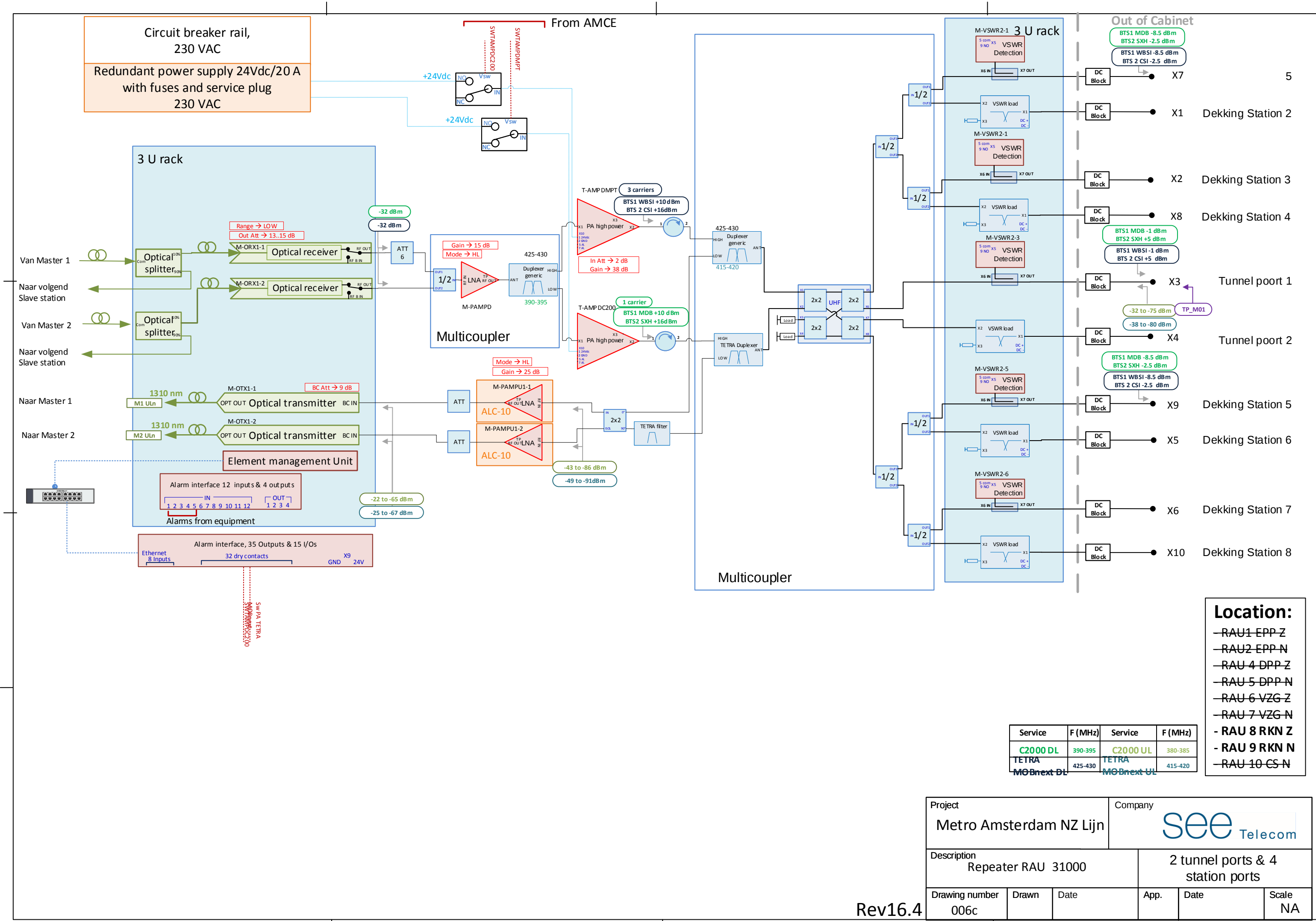


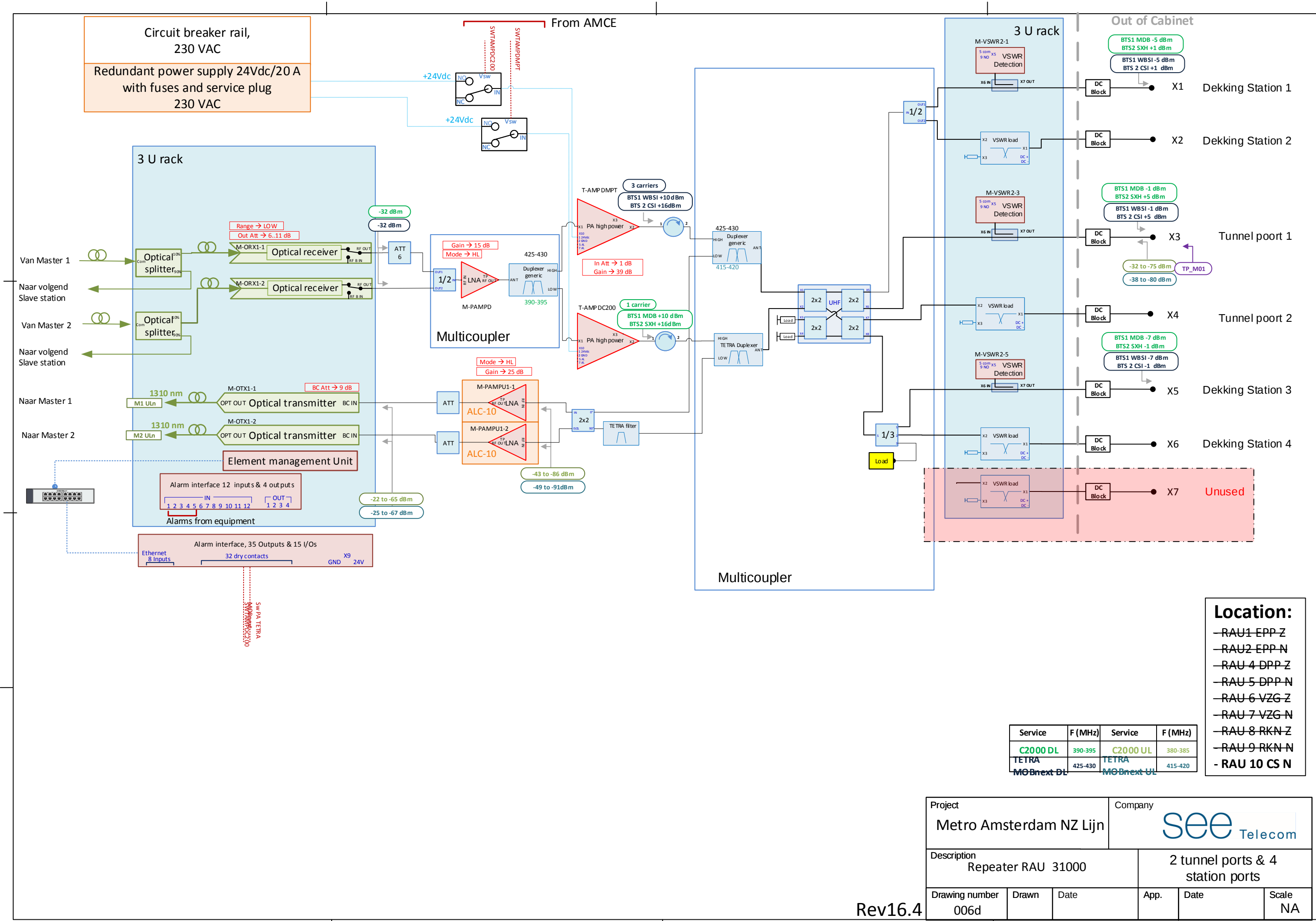
- Location:**
- RAU1 EPP-Z
 - RAU2 EPP-N
 - RAU 4 DPP Z
 - RAU 5 DPP N
 - RAU 6 VZG-Z
 - RAU 7 VZG-N
 - RAU 8 RKN-Z
 - RAU 9 RKN-N
 - RAU 10 CS-N

Service	F (MHz)	Service	F (MHz)
C2000 DL	390-395	C2000 UL	380-385
TETRA	425-430	TETRA	415-420
MOBnext DL		MOBnext UL	

Project Metro Amsterdam NZ Lijn			Company see Telecom		
Description Repeater RAU 31000			2 tunnel ports & 4 station ports		
Drawing number 006b	Drawn	Date	App.	Date	Scale NA

Rev16.4



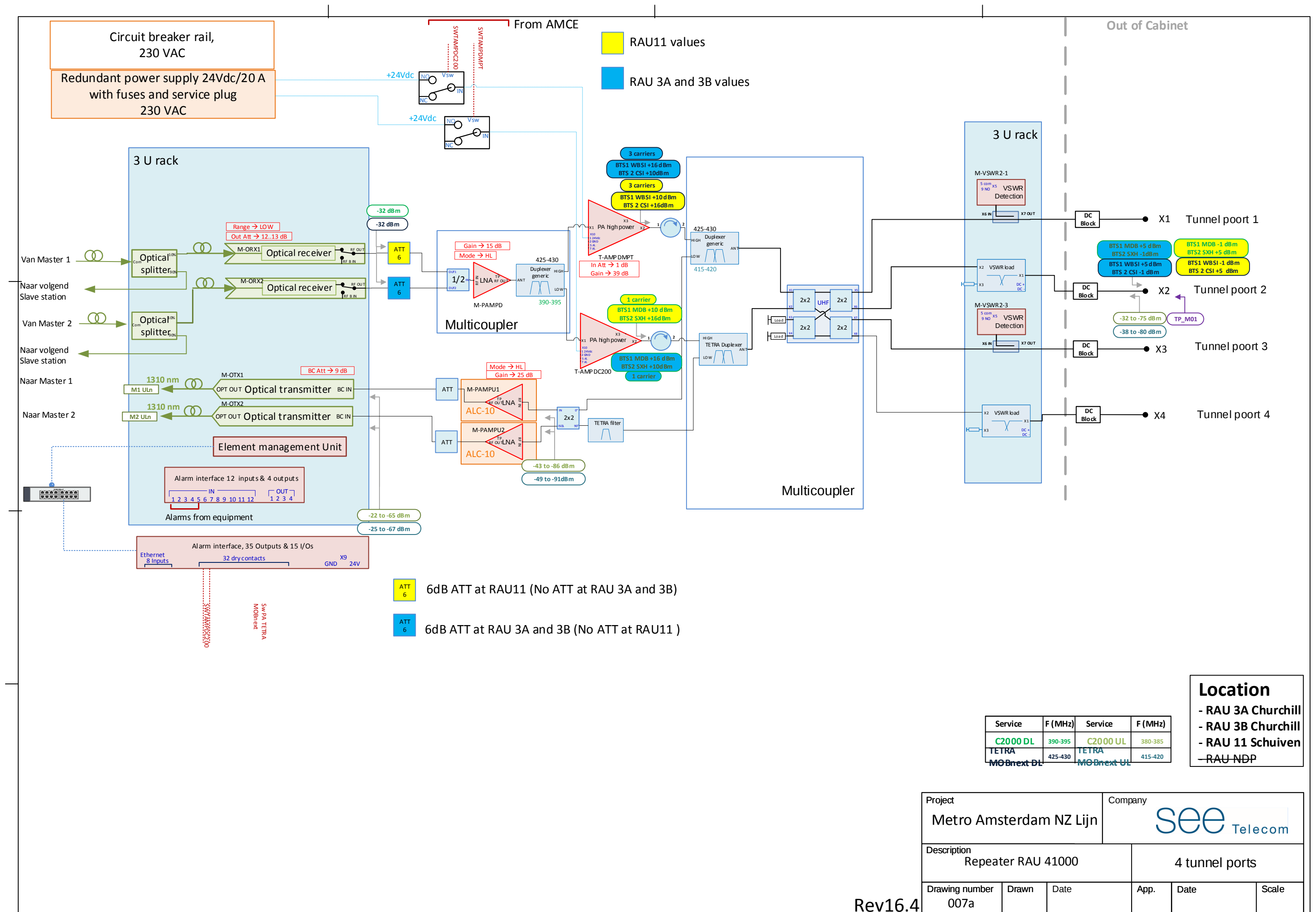


- Location:**
- RAU1 EPP-Z
 - RAU2 EPP-N
 - RAU 4 DPP-Z
 - RAU 5 DPP-N
 - RAU 6 VZG-Z
 - RAU 7 VZG-N
 - RAU 8 RKN-Z
 - RAU 9 RKN-N
 - RAU 10 CS N

Service	F (MHz)	Service	F (MHz)
C2000 DL	390-395	C2000 UL	380-385
TETRA	425-430	TETRA	415-420
MOBnext DL		MOBnext UL	

Project Metro Amsterdam NZ Lijn			Company see Telecom		
Description Repeater RAU 31000			2 tunnel ports & 4 station ports		
Drawing number 006d	Drawn	Date	App.	Date	Scale NA

Rev16.4



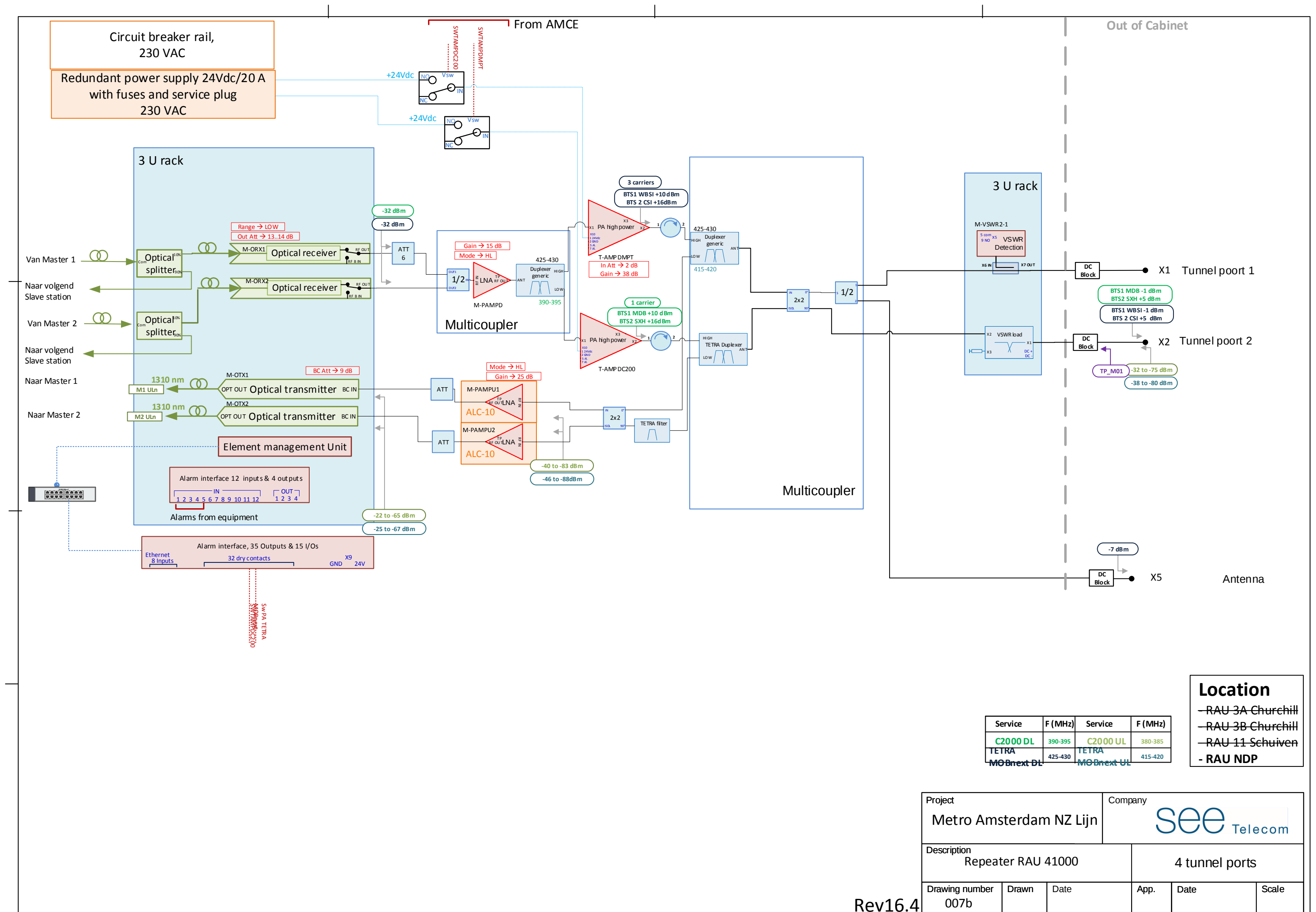
Service	F (MHz)	Service	F (MHz)
C2000 DL	390-395	C2000 UL	380-385
TETRA	425-430	TETRA	415-420
MOBnext DL		MOBnext UL	

Location

- RAU 3A Churchill
- RAU 3B Churchill
- RAU 11 Schuiven
- RAU NDP

Project Metro Amsterdam NZ Lijn			Company see Telecom		
Description Repeater RAU 41000			4 tunnel ports		
Drawing number 007a	Drawn	Date	App.	Date	Scale

Rev16.4



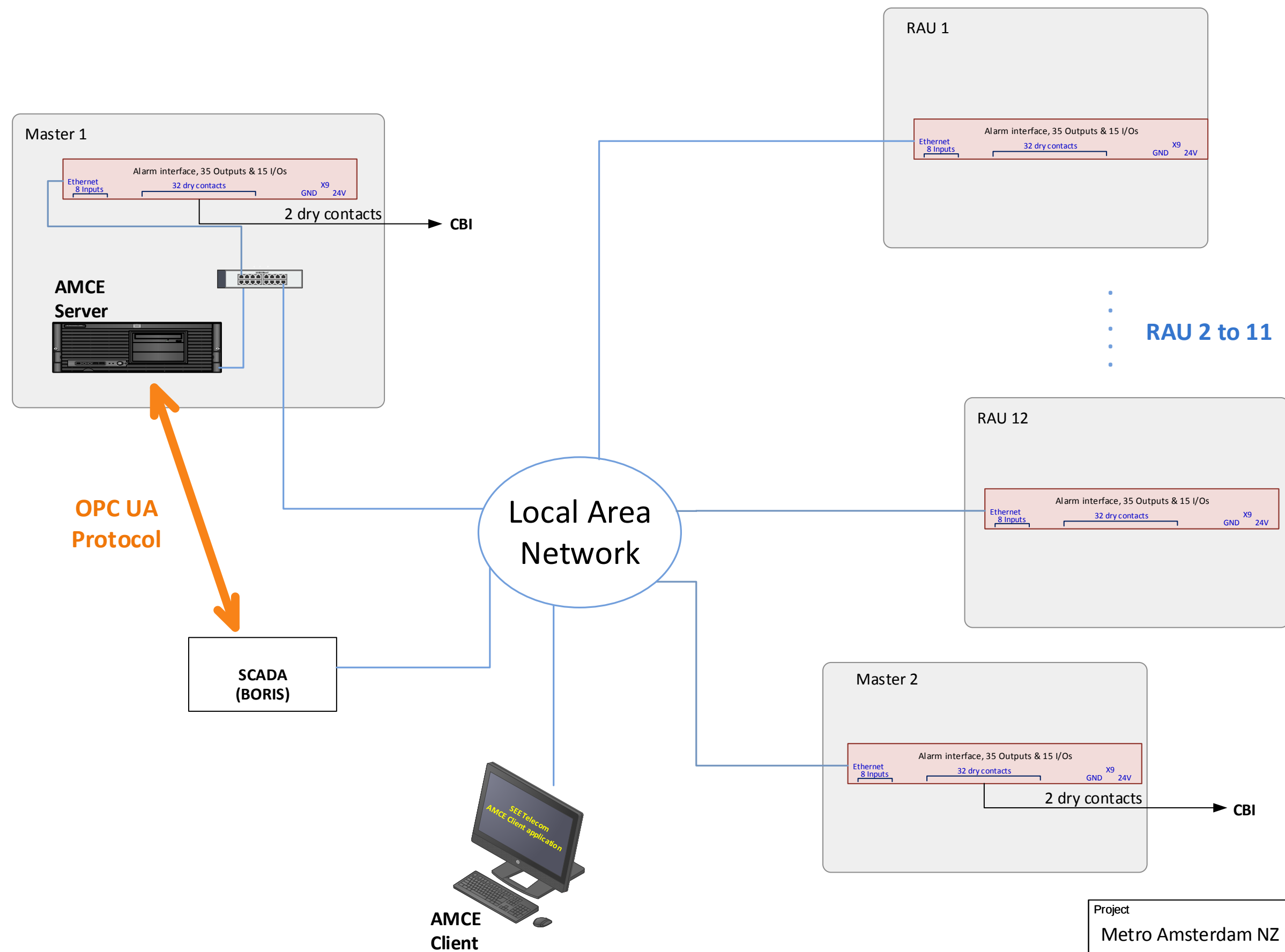
Service	F (MHz)	Service	F (MHz)
C2000 DL	390-395	C2000 UL	380-385
TETRA	425-430	TETRA	415-420
MOBnext DL		MOBnext UL	

Location

- RAU 3A Churchill
- RAU 3B Churchill
- RAU 11 Schuiven
- RAU NDP

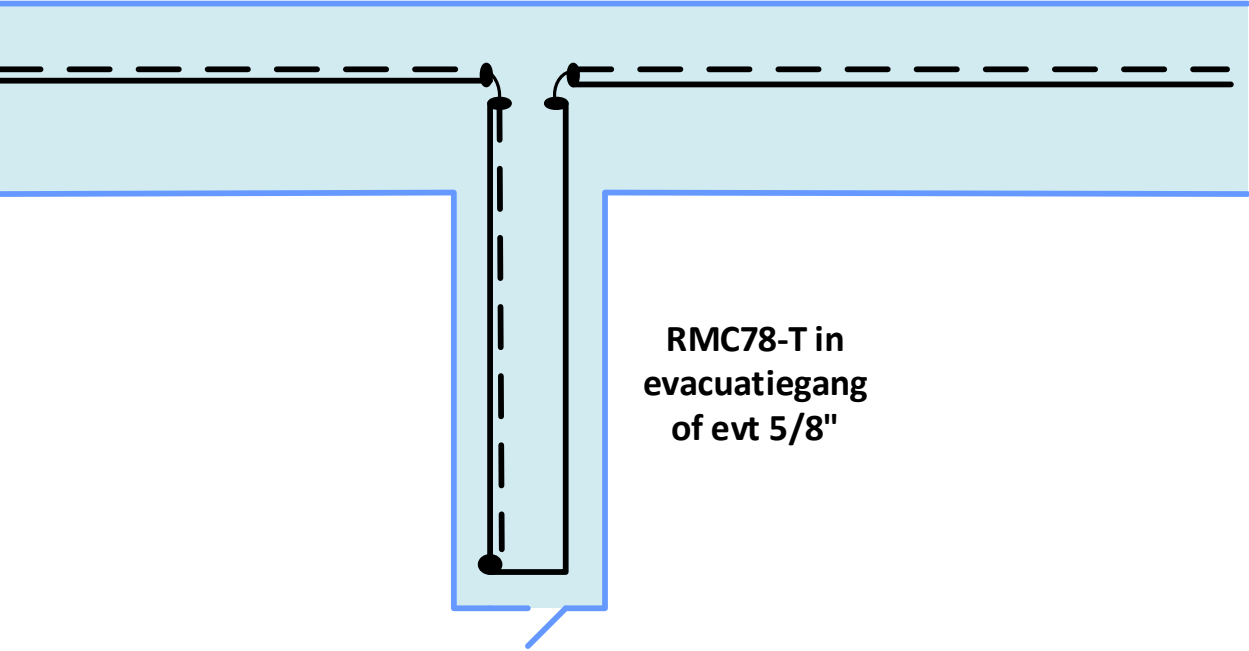
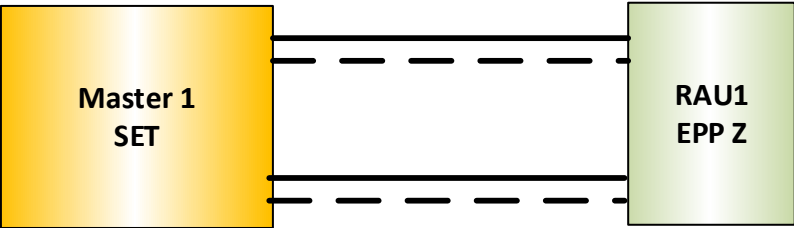
Project Metro Amsterdam NZ Lijn			Company see Telecom		
Description Repeater RAU 41000			4 tunnel ports		
Drawing number 007b	Drawn	Date	App.	Date	Scale

Rev16.4



Rev16.3

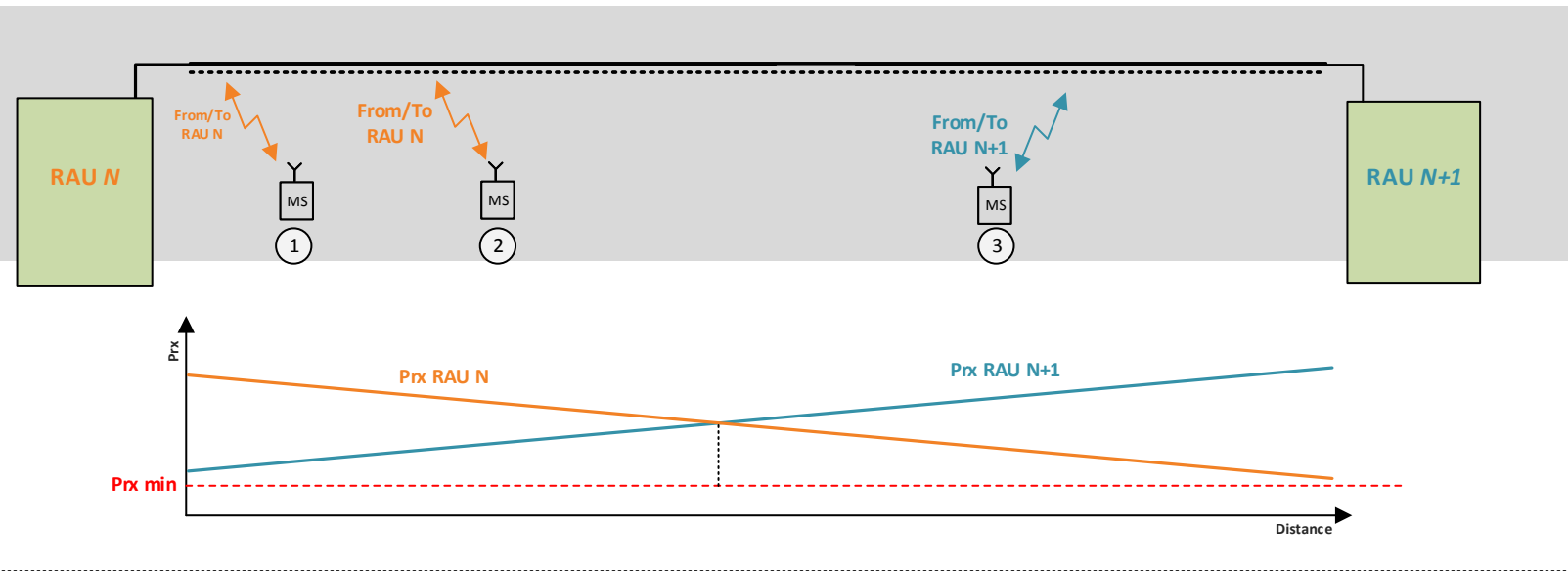
Project Metro Amsterdam NZ Lijn			Company 		
Description Alarm Monitoring architecture					
Drawing number 008	Drawn	Date	App.	Date	Scale NA



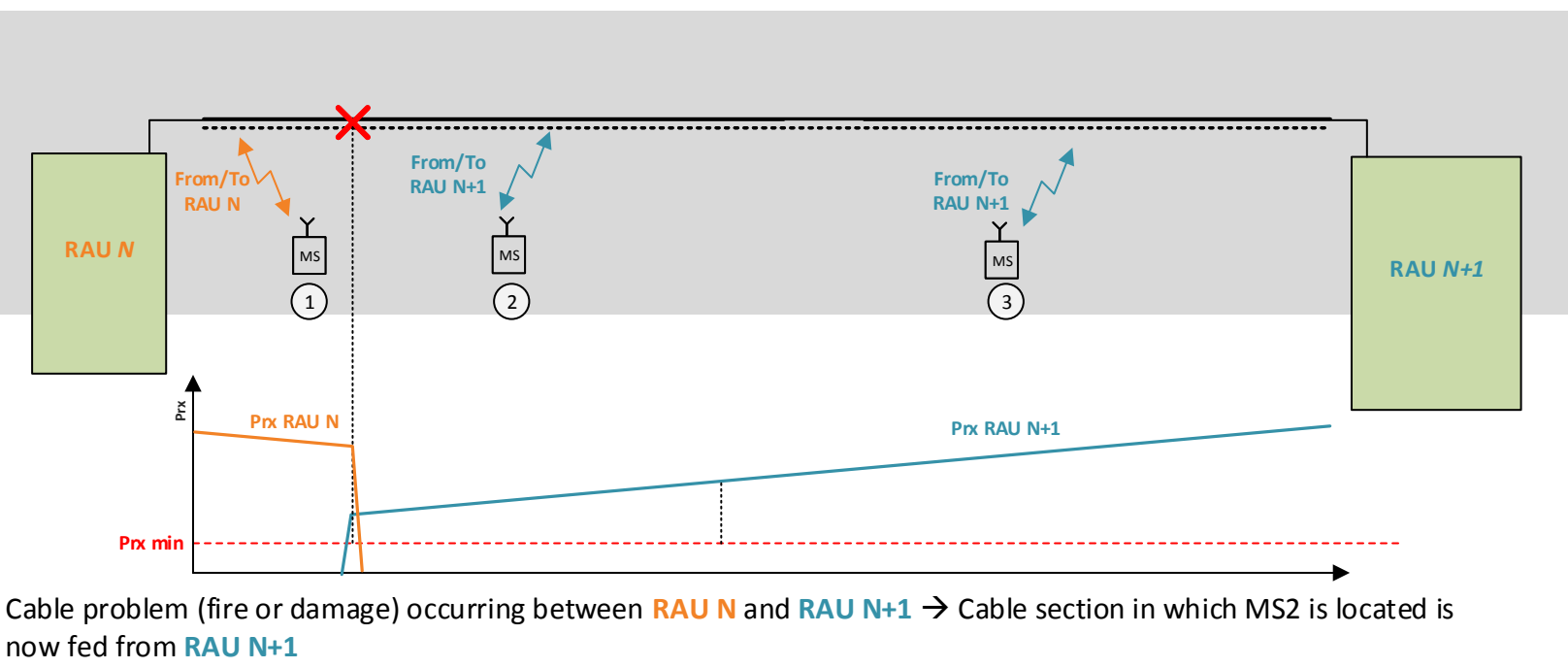
Rev16.3

Project Metro Amsterdam NZ Lijn			Company 		
Description Escape gallery and tunnel security exits					
Drawing number 009	Drawn	Date	App.	Date	Scale NA

Nominal Mode



Redundant Mode



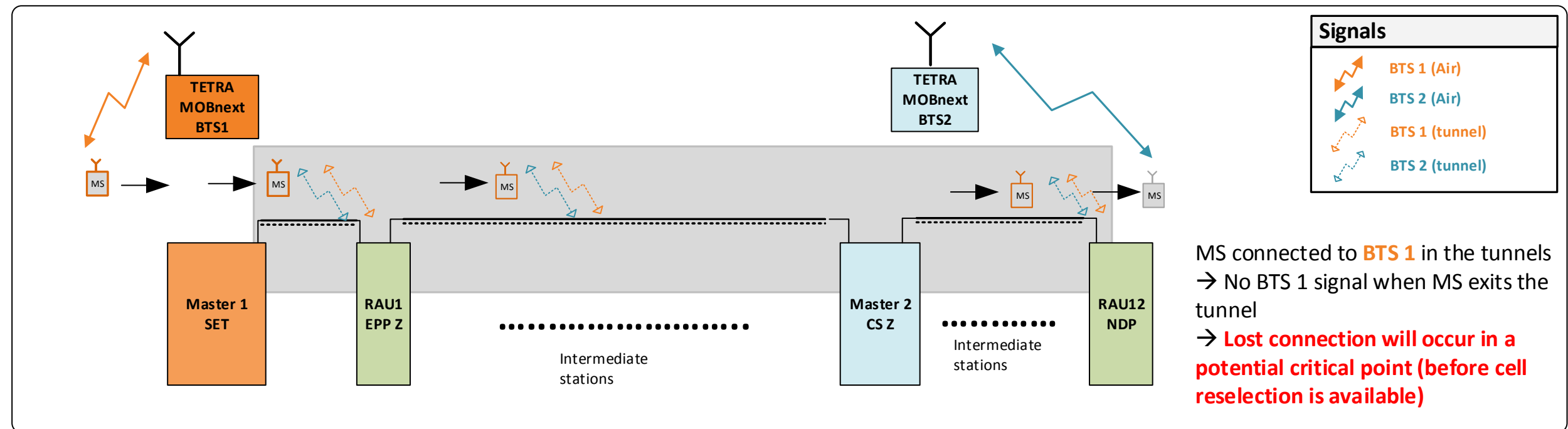
Coaxial cables	
-----	RMC78-T-HLFR
———	5228-A Feeder

Various	
	Mobile Station
	50 Ohm load

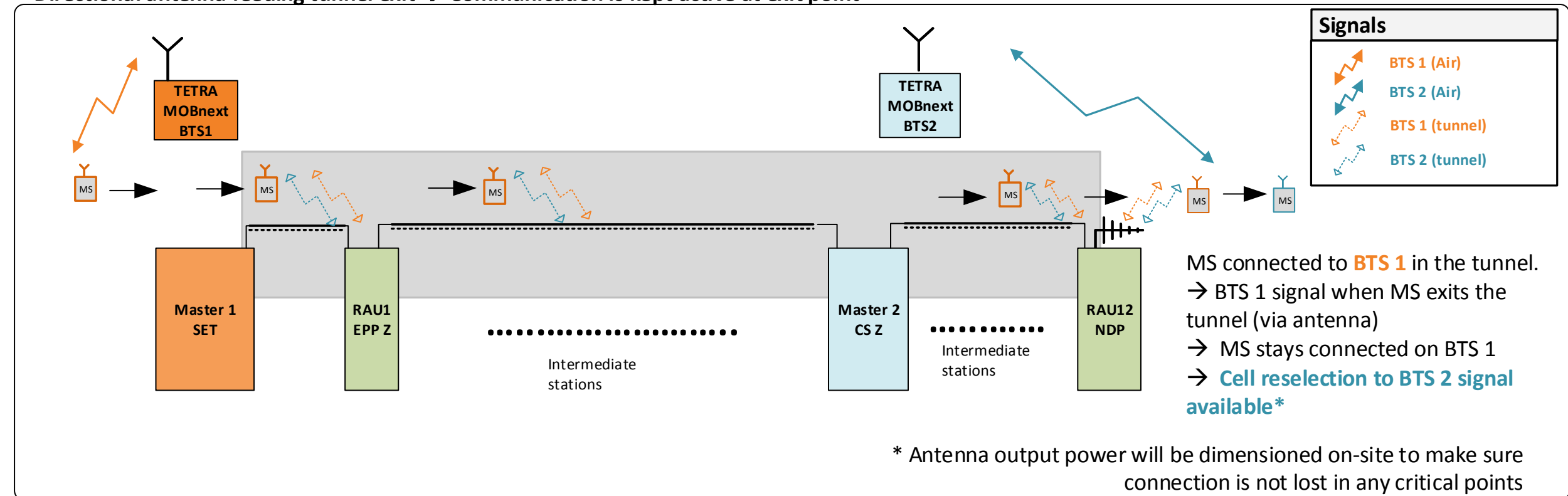
Rev16.3

Project Metro Amsterdam NZ Lijn			Company 		
Description Nominal and Redundant Mode					
Drawing number 010	Drawn	Date	App.	Date	Scale NA

Radiating cable only → Communication loss at tunnel exit point



Directional antenna feeding tunnel exit → Communication is kept active at exit point



Project Metro Amsterdam NZ Lijn			Company see Telecom		
Description TETRA MOBnext Cell reselection					
Drawing number 011	Drawn	Date	App.	Date	Scale NA

Rev16.3