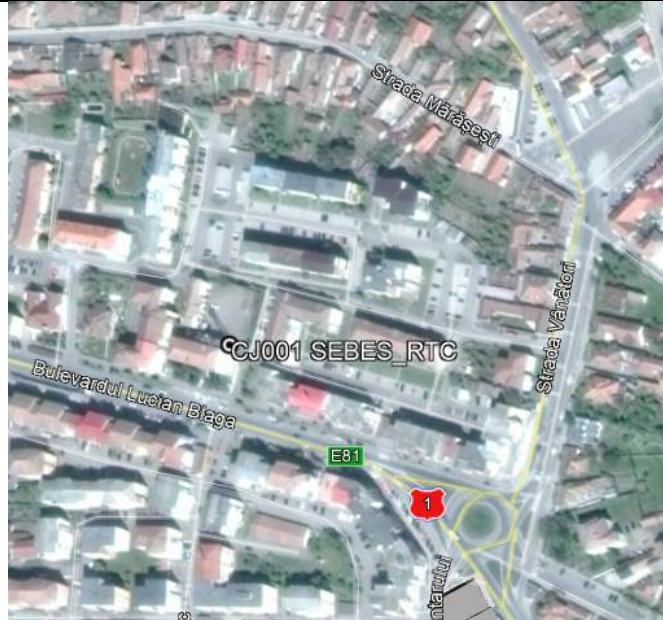
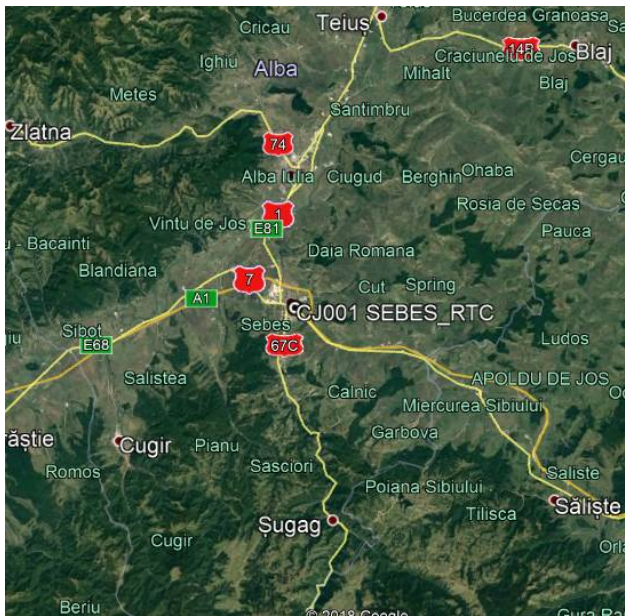




## SITE SURVEY REPORT Ericsson

### 1. GENERAL INFORMATION

Site name:	SEBES_RTC
Site number (code):	CJ001
Site address (city;street;no.; building; entrance):	Romtelecom Sebes Sebes Alba
Site area:	ALBA
Site survey team:	ATS
Checked by:	Luca Valentin
Date of site survey:	06.02.2018
Type of Site (urban, rooftop):	Greenfield
Lesser:	-
Contact Person:	-



Other Remarks:	Cheile se iau de la sediul Ericsson din SIBIU.
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### 2. ROOFTOP (Building information)

GPS coordinates:	N E
Building height:	m
Existent tripod:	Yes <input type="checkbox"/> NO <input type="checkbox"/>
Total height:	m
Use of crane for materials transportation:	Yes <input type="checkbox"/> NO <input checked="" type="checkbox"/>

Other Remarks:	
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**3. GREEN FIELD (Specific data information)**

GPS coordinates:	N 45° 57' 23.51" E 23° 34' 34.59"
Tower:	Yes <input checked="" type="checkbox"/> NO <input type="checkbox"/>
Tower type:	<input checked="" type="checkbox"/> Heavy Cosmosite tower – 39m <input type="checkbox"/> Polygonal Monopol – 30m (or more) <input type="checkbox"/> Monopole lattice tower-30m <input type="checkbox"/> Guyed tower on shelter-30m
Antenna Metallic Structure:	New "H" Yes <input type="checkbox"/> NO <input checked="" type="checkbox"/> Upgrade existing "H" Yes <input type="checkbox"/> NO <input checked="" type="checkbox"/> Atypical Structure Yes <input type="checkbox"/> NO <input checked="" type="checkbox"/>
RRU Metallic Structure:	New RRU Support Yes <input type="checkbox"/> NO <input checked="" type="checkbox"/> Atypical Structure Yes <input type="checkbox"/> NO <input checked="" type="checkbox"/>
Mini - shelter require:	Yes <input type="checkbox"/> NO <input checked="" type="checkbox"/>
Mini – shelter frame standard adaptor solution:	Yes <input type="checkbox"/> NO <input checked="" type="checkbox"/>
In case Non Standard Mini-shelter frame solution, dimensions are requested:	N/A
Non standard mini - shelter frame profile	N/A
RRU to Antenna/Combiner Jumper length (type: DIN7/16 Male –N Male):	24x8m;
Antenna to Combiner -> Jumper length (type: DIN7/16 Male – DIN7/16 Male):	N/A
FO cable length between BB to RRU	12x80m
DC cable length between PP to RRU	12x80m
Type and length of DC power for RRU Cu 2x6 mm <sup>2</sup> (L<30m):	-
Type and length of DC power for RRU Cu 2X10 mm <sup>2</sup> if needed(30m<L<60m):	Type Cu 2x10mm <sup>2</sup> / 12x80m
Type and length of DC power for RRU Cu 2X16 mm <sup>2</sup> if needed(60m<L<90m):	-
Type and length of DC power for RRU Cu 2X25 mm <sup>2</sup> if needed(L>90m):	-
Combo Box required:	Yes <input type="checkbox"/> NO <input checked="" type="checkbox"/> ; Length of cable: ..... m
Connection patch length from CB to RRU (FO&DC)	-
Outdoor CB existing breakers type	16A <input type="checkbox"/> 25A <input type="checkbox"/> Oth. <input type="checkbox"/> 32A
PDU existing breakers availability (63A in PP)	Yes <input type="checkbox"/> NO <input checked="" type="checkbox"/>
DC cable length from PP to new PDU	-
PP Type / producer plus picture on the bottom	ANTRICE

**4. EXISTING CONTRACT & CHANGES**

Indoor space requires contract change	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Outdoor space requires contract change	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Cable routing requires contract change	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Power cabling requires contract change	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Indoor space requires studies & license change	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Outdoor space requires studies & license change	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Cable routing requires studies & license change	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Power cabling requires studies & license change	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	

Other Remarks:	
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**5. POWER SUPPLY INFORMATION**

Power availability:	YES					
Voltage-measurements (PLC display):	L1(V)	-	L2(V)	-	L3(V)	-
Amperage-measurements (PLC display, without A/C):	I1(A)	-	I2(A)	-	I3(A)	-
Amperage-measurements (PLC display, with A/C):	I1(A)	-	I2(A)	-	I3(A)	-
Outdoor mini shelter: 32A available breaker in LDB (5x6 mm <sup>2</sup> AC Cable)	N/A					
1X16A available breakers in indoor Power System	NO					
1X32A available breakers in indoor Power System	NO					
2X63A available breakers in indoor Power System	Yes					
Power counter exist:	Yes					
Main AC board exist:	Yes					
Breaker value in BMPT:	N/A					
Surge arrestors existence:	Yes					
Type and length of power connection cable for BBU	Cu 2x2.5mm <sup>2</sup> - 5m					
Type and length of power connection shielded cable Al 6X25 mm <sup>2</sup> if needed:	-					
Type and length of power connection shielded cable Al 6X35 mm <sup>2</sup> if needed:	-					
Type and length of AC power connection cable 5X6 mm <sup>2</sup> for mini shelter if needed:	-					
Type and length of DC power from PSU to PDU Al 2x35 mm <sup>2</sup> if needed:	-					
CB/PDU/2 Sections (if needed):	-					
CB/PDU/3 Sections (if needed):	-					
PDU indoor (if needed):	NO					
Boards grounding - secured:	YES					
Boards waterproofed:	YES					

Other Remarks:	
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**6. POWER PLANT and BATTERY INFORMATION**

Number of units	Unit 1 <input checked="" type="checkbox"/>	Unit 2 <input type="checkbox"/>
Type	300A <input type="checkbox"/> 600A <input type="checkbox"/> Other <input checked="" type="checkbox"/>	300A <input type="checkbox"/> 600A <input type="checkbox"/> Other <input checked="" type="checkbox"/>
Nr./capacity[A] of rectifier modules	4/50	
DC Load Amperage(displayed) [A]	-	
Battery capacity [Ah]	152Ah	
Battery type/number	12MVR155L/8	

Other Remarks:	1 redresor nefunctional
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**7. AIR CONDITIONING INFORMATION**

Temperature [°C]	Internal: -	External:-
Number of units	Unit 1 <input checked="" type="checkbox"/>	Unit 2 <input type="checkbox"/>
Type	Free Cooling <input type="checkbox"/> Duct <input checked="" type="checkbox"/> Split <input type="checkbox"/>	Free Cooling <input type="checkbox"/> Duct <input type="checkbox"/> Split <input type="checkbox"/>
Technical specifications from external unit label		
Cooling capacity [BTU]	9.000 <input type="checkbox"/> 12.000 <input checked="" type="checkbox"/> 18.000 <input type="checkbox"/> 24.000 <input type="checkbox"/> Other <input type="checkbox"/>	9.000 <input type="checkbox"/> 12.000 <input type="checkbox"/> 18.000 <input type="checkbox"/> 24.000 <input type="checkbox"/> Other <input type="checkbox"/>



Start meter	Compressor: - Evap. Fan:- Heather: -	Compressor: Evap. Fan: Heather:
Work time meter [h]	Compressor: - Evap. Fan: - Heather: -	Compressor: Evap. Fan: Heather:
Alarms outputs	Very high temp <input type="checkbox"/> Very low temp <input type="checkbox"/>	Very high temp <input type="checkbox"/> Very low temp <input type="checkbox"/>

Other Remarks:	
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**8. NEW INSTALLATION INFORMATION**

Common: number of buss with free holes	YES
Common: Available space on the existing cable tray	YES
Indoor equipment: Existing space for ILP mounting	N/A
Indoor equipment: Existing space for Radio Indoor equipment mounting	N/A
Indoor equipment: Existing space for Indoor Concentrator equipment mounting	N/A
Indoor equipment: Existing space for DC PDU mounting	YES
Indoor equipment: Available holes in FIMO	YES
Outdoor equipment: Existing space on the existing base frame for mini shelter mounting	N/A
Outdoor equipment: Existing outdoor transmission cabinet	N/A
Outdoor equipment: Existing space for outdoor Concentrator mounting (proposal)	N/A
Outdoor equipment: Existing space for RRU mounting (proposal)	YES

Other Remarks:	
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**9. EXISTING TELECOM EQUIPMENT & INFRASTRUCTURE**

**a. General information**

Equipment type:	Indoor <input checked="" type="checkbox"/>	Outdoor <input type="checkbox"/>	
Number of RF antennas:	4 Telekom, 3 Orange		
Number of MW links	2 Telekom, 3 Orange		
Nr. of existing RBS cabinets	0		
MW existing RL cabinet	Indoor <input checked="" type="checkbox"/>	Outdoor <input type="checkbox"/>	
Power cabinet exist (BBS):	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Existing cable ladder availability:	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Existing cable entry availability:	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Air condition existence & operation	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Grounding protection existence:	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Lightning protection existence:	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Installation of RF & IF cables requires special machinery (e.g. crane)	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	



**b. Existing Masts**

	Height	Length	poles/mast	Cell_id on the mast	installation readiness
1					
2					
3					
4					

**c. Existing Antenna Poles**

	Height	Length	Cell_id	Corner/Tower	Obstacles	installation readiness
1	39.0m	2x3m	RF U,Q,K		No	Yes
2	39.0m	1x3m	RF V,R,L		No	Yes
3	39.0m	1x3m	RF W,S,M		No	Yes
4	39.0m	2x3m	RF Z,T,N		No	Yes

**d. Existing MW Poles**

	Height	Length	Hop id	Corner/Tower	Far end	Obstacles	installation readiness
1	+32.6m	1m	-				
2	+26.7m	1m					
3							
4							
5							
6							

Remarks:	
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**10. ANALYSIS LOADING DATA**

LOAD TYPE	DIAMETER (mm)	POSITION (m)	NUMBER
M/W LINK	300	+32.6m	1
M/W LINK	300	+26.7m	1
M/W LINK			
M/W LINK			
M/W LINK			
M/W LINK			



11. EXISTING LAYOUT(S):  
GENERAL VIEW OF STRUCTURE

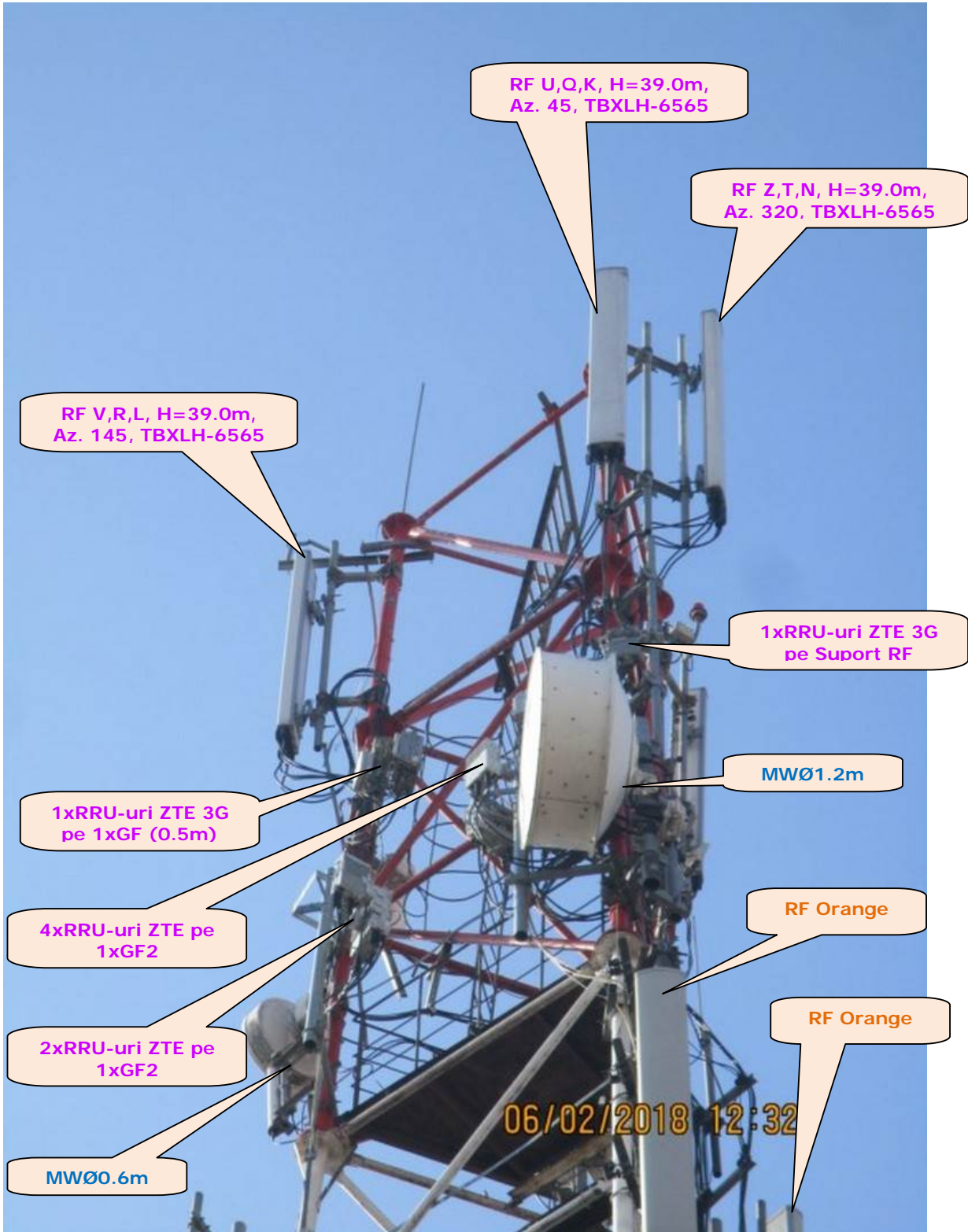






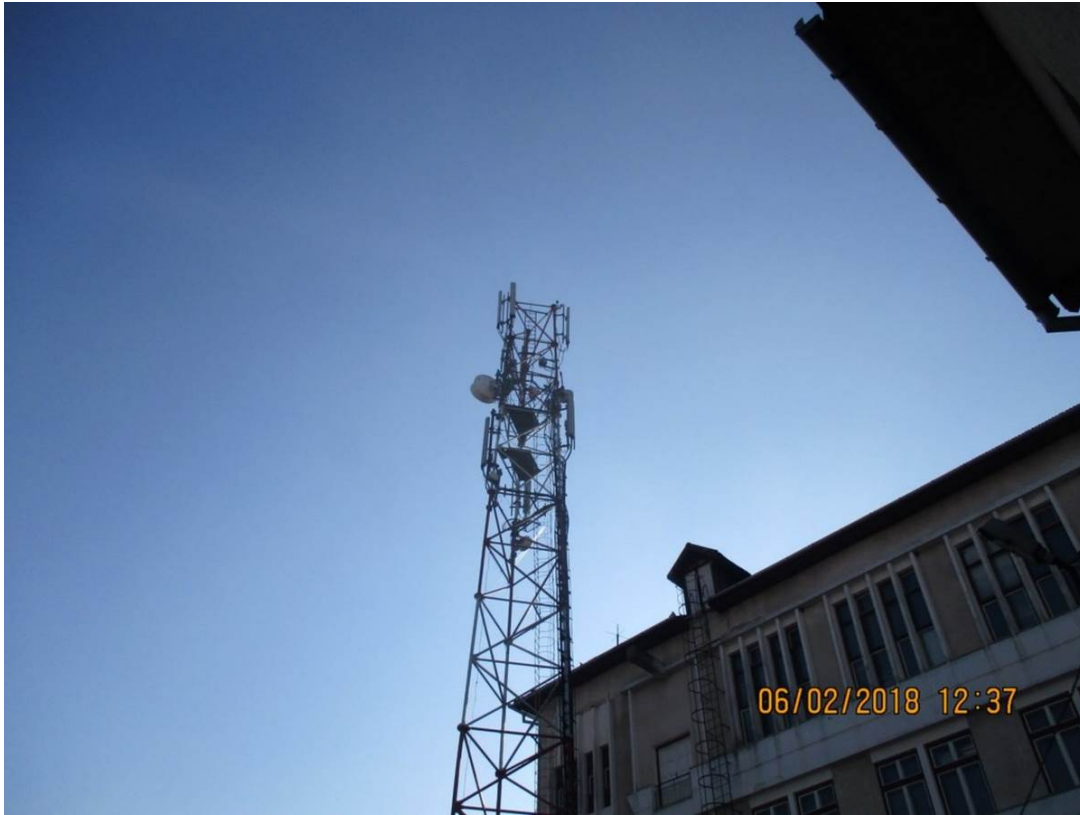


RADIO INFORMATION









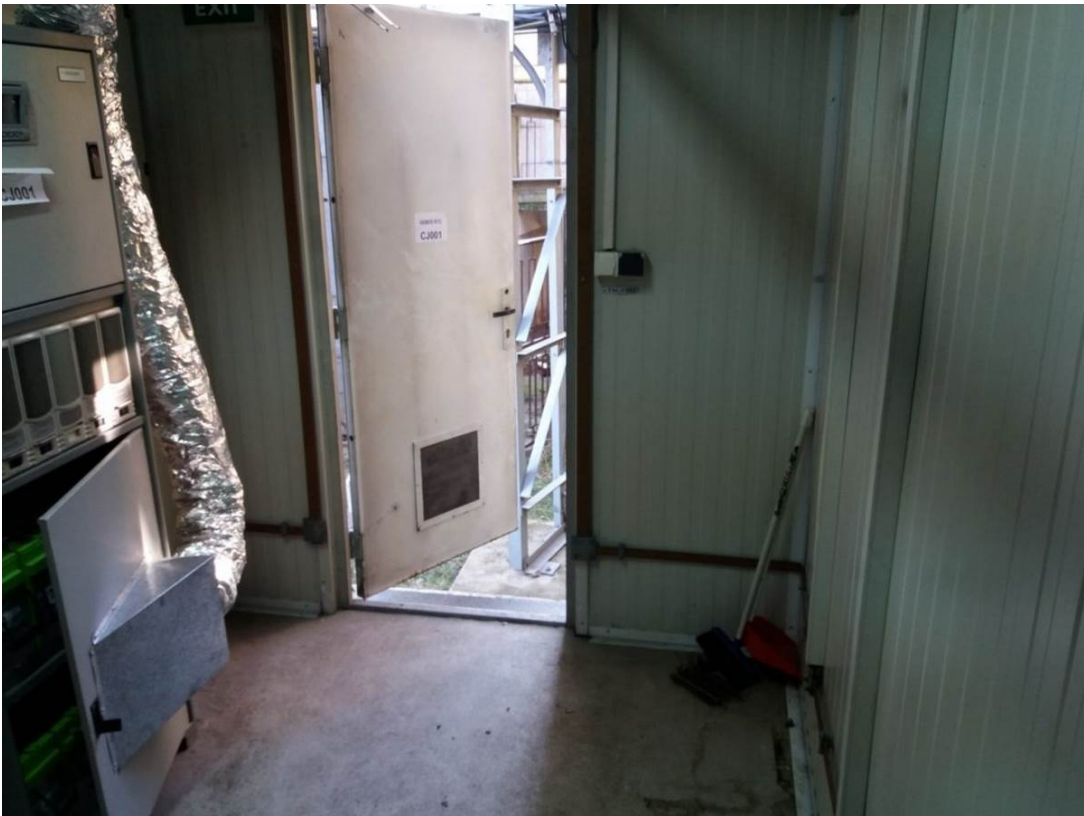


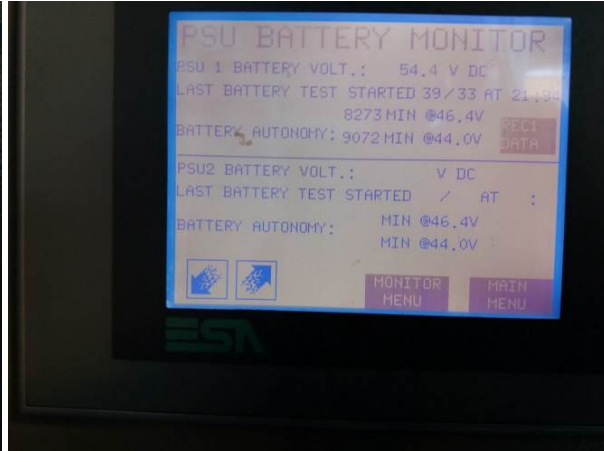


Capac pat de cablu abandonat





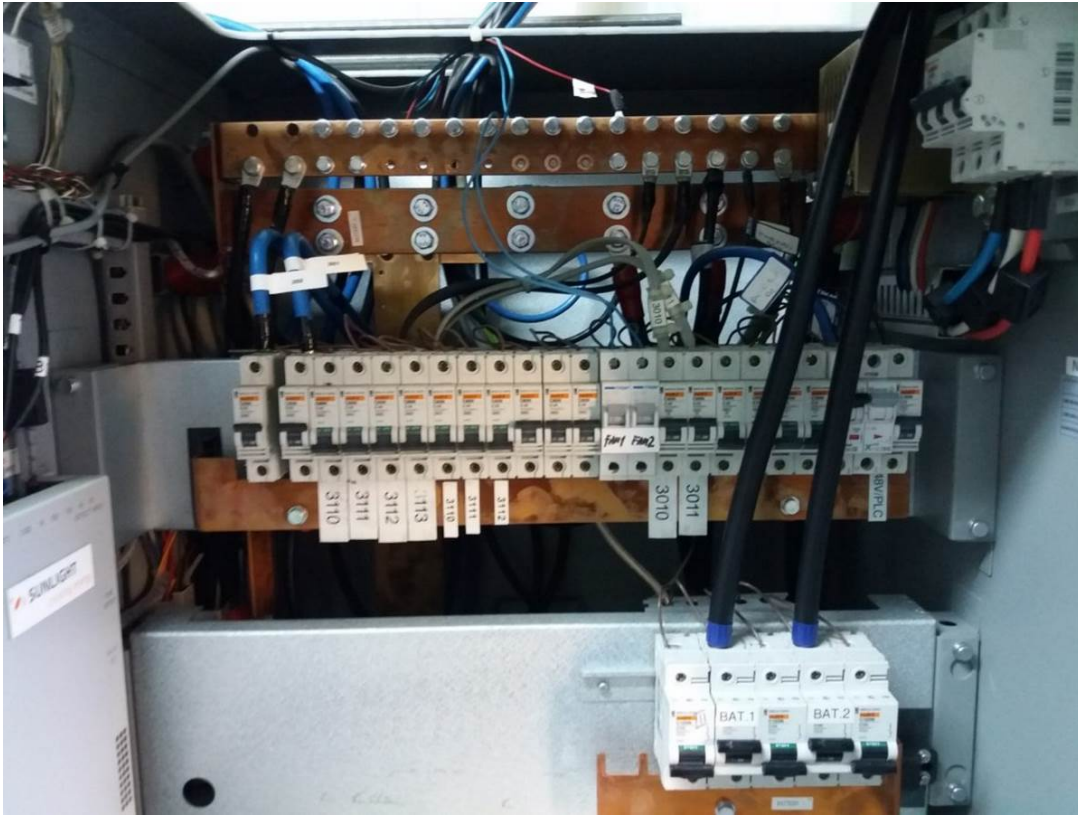


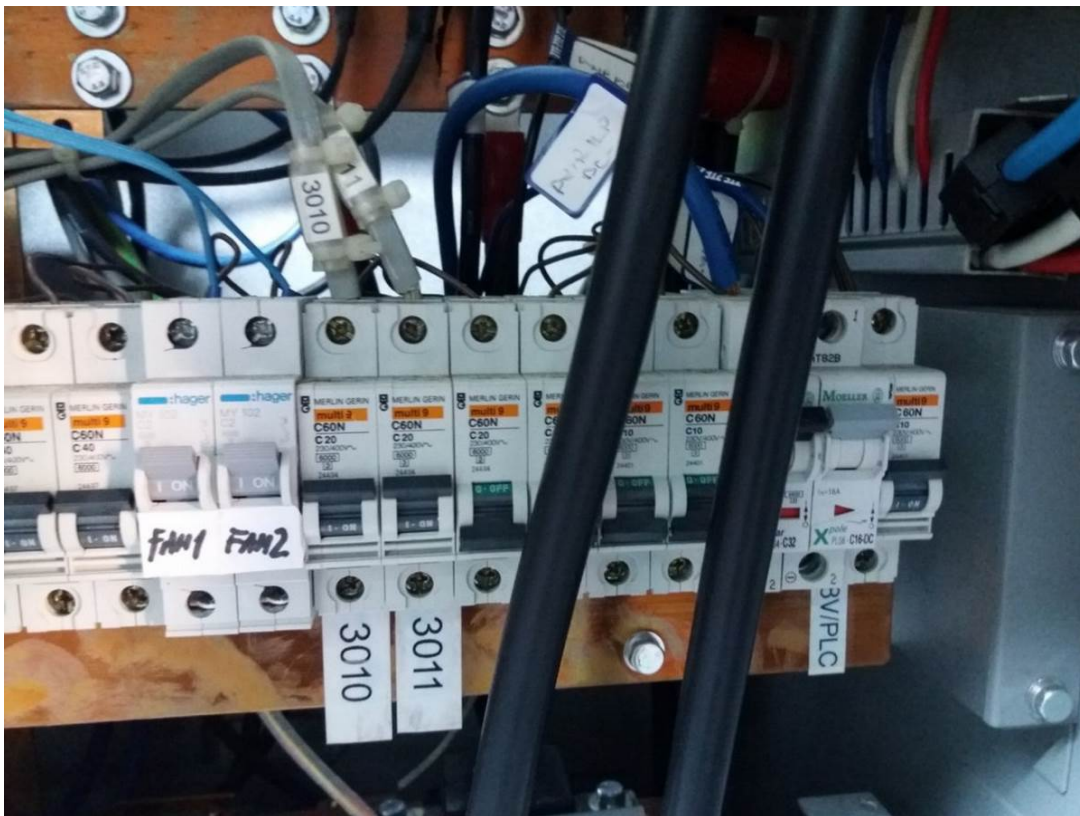
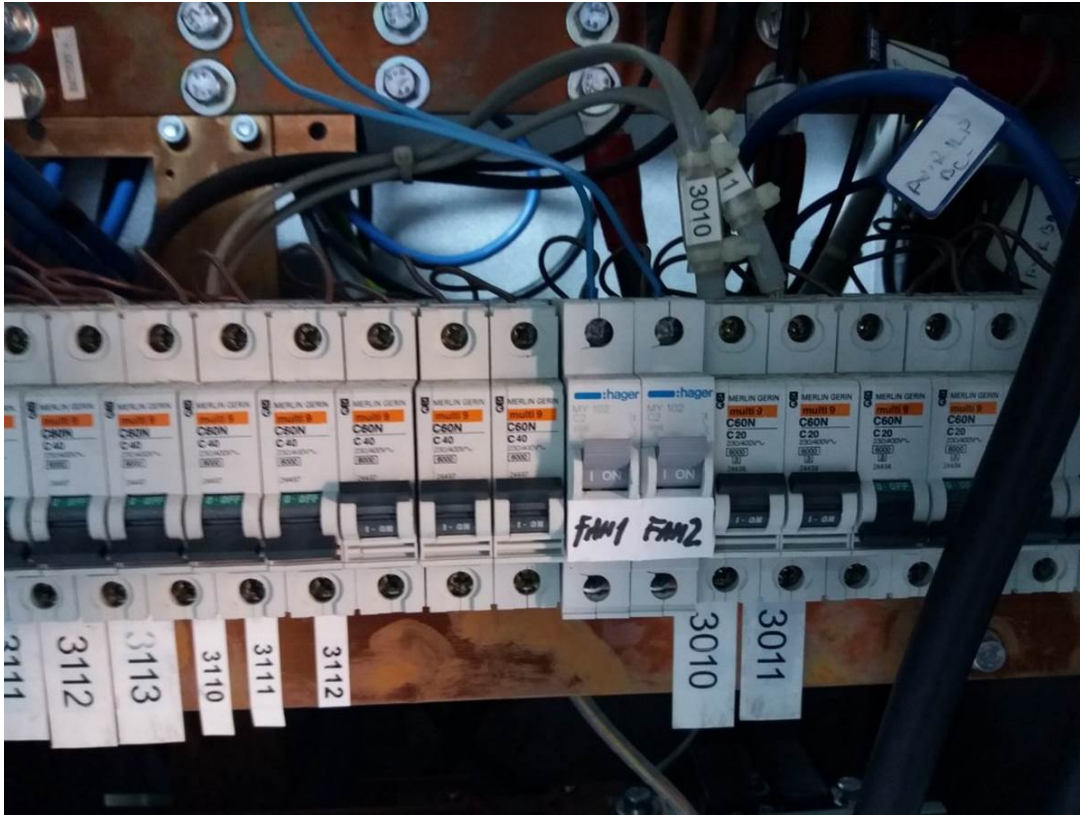




















**CW INFORMATION**

**12. PROPOSED INFRASTRUCTURE & EQUIPMENT SOLUTION**

**a. Indoor cabinets**

Dimensions of existing room:	-
Space availability for indoor equipment:	YES
Expansion of existing equipment room:	NO
Shelter needed:	NO
Shelter concrete base needed:	NO
Space availability for new shelter positioning:	N/A
AC power extension/change:	NO
Main grounding bus bar existence:	YES
Water proofing of the room needs restoration:	NO
Internal Lighting restoration:	NO
Wall painting needed:	NO
Antistatic floor addition:	NO
Fire alarm system expansion:	NO
Air Conditioning (A/C) expansion/replacement:	NO
Nr./capacity[A] of rectifier modules	4x50A;
Security Lights board:	NO
Plastic trays for cables expansion :	NO
Internal ladder for the feeders availability:	YES
Cable entry expansion:	NO
Other Remarks:	-

**b. Outdoor cabinets**

New metal base needed:	N/A
Dimensions of new metal base:	N/A
Secure of metal base on floor:	N/A
Grounding of base/Earthing for equipments:	N/A
AC power supply availability:	N/A
Needed properly holes on base:	N/A
Clearances around cabinets:	N/A
Other Remarks:	-



**c. Proposed New Masts**

	Height	Length	poles/mast	Cell_id on the mast	Position
1					
2					
3					
4					

**d. New Antenna Poles**

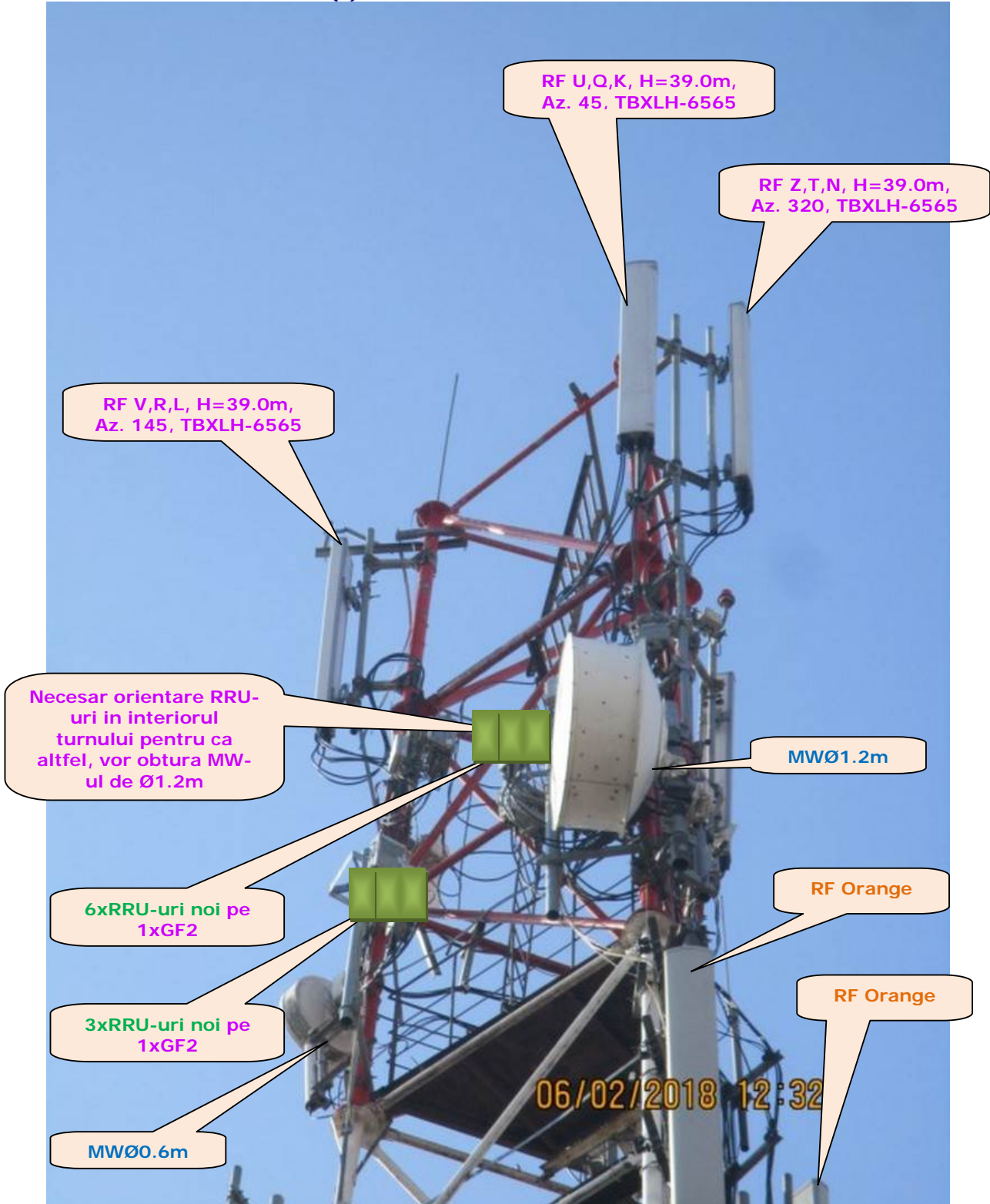
	Height	Length	Cell_id	Corner/Tower	Obstacles	installation readiness
1						
2						
3						
4						

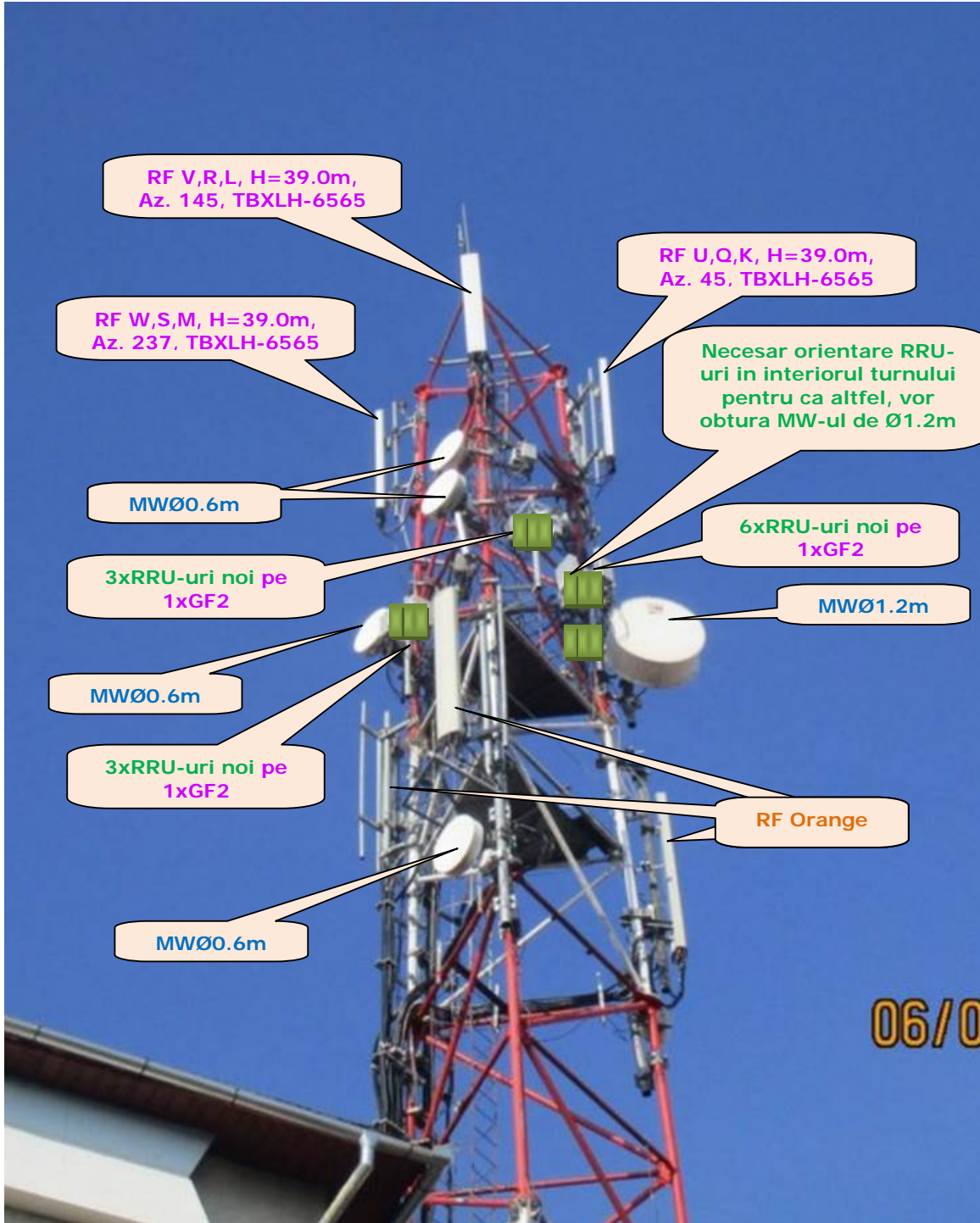
**e. New MW Poles**

	Height	Length	Hop id	Corner/Tower	Far end	Obstacles	installation readiness
1							
2							
3							

<b>Proposed corrective works:</b>	<p>Reconfigurarea site-ului <b>CJ001 SEBES_RTC</b> care sa includa urmatoarele elemente:</p> <ul style="list-style-type: none"> <li>- se vor pastra antenele existente 4xTBXLH-6565-VTM;</li> <li>- se vor instala 12xRRU-uri noi (4xGSM900 ,4x LTE1800 si 4x UMTS2100) pe cei 3 suportii GF2 existenti. RRU-urile trebuie instalate spre interiorul turnului. Distanța de la suportii GF2 pana la antene este de 7m;</li> <li>- Se va instala 1xRBS6601 echipat cu BB5216 si BB5212 in Rack existent;</li> <li>- In PDU sunt doar 9 sigurante libere. Necesara PDU nou provizoriu pentru alimentare RRU-uri existente; Dupa swap, se va dezinstala PDU si se va returna;</li> <li>- RRU-urile noi se vor alimenta din 8 sigurante existente din PDU existent si din 4 sigurante noi din PDU nou provizoriu cu cabluri DC CU2x10mmp – 80m;</li> <li>- PDU-ul provizoriu se va alimenta din 2x63A noi din PP(se vor inlocui 2 sigurante de 40A);</li> <li>- Pentru pozare cabluri noi pe traseul de cabluri de pe cladire, este necesara nacela. Inaltimea pana la patul de cablu de pe lateralul cladirii este de H=9m !</li> <li>- RBS6601 nou se va alimenta din 1x16A din PDU existent;</li> <li>- Dupa swap, se vor dezinstala RRU-urile ZTE + cei 3 suportii de 0.5m+FO/DC aferente + echipamentele ZTE din shelter;</li> </ul> <p>Sunt necesare:</p> <ul style="list-style-type: none"> <li>Feederi 1/2" – 24x8m;</li> <li>FO – 12x80m;</li> <li>DC CU2x10mmp – 12x80m;</li> <li>DC alimentare RBS – 5m;</li> <li>DC Alimentare PDU provizoriu – 10m;</li> <li>2 sigurante noi de 63A pentru alimentare PDU provizoriu;</li> </ul>
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13. PROPOSED SOLUTION LAYOUT(S): PICTURES AND COMMENTS:







**14. Detailed site information/Picture:**

- o Pictures with Metallic existing structure; further reuse to be acknowledge by Telekom;
- o Pictures with existing Cable tray to decide if additional feeders can be added/ if case