

Project Notes

OSF SUMMARY:

- Outdoor Order: Rollout_G09+Rollout_L08+Rollout_L18
- New site to replace FANAVEIEN166.
- Find a new location to replace coverage at FANAVEIEN166 and improve the coverage around the school at Stend.

RELATED ORDERS:

- DEC214 - Decommission FANAVEIEN166 (010263)

CANDIDATE LIST:

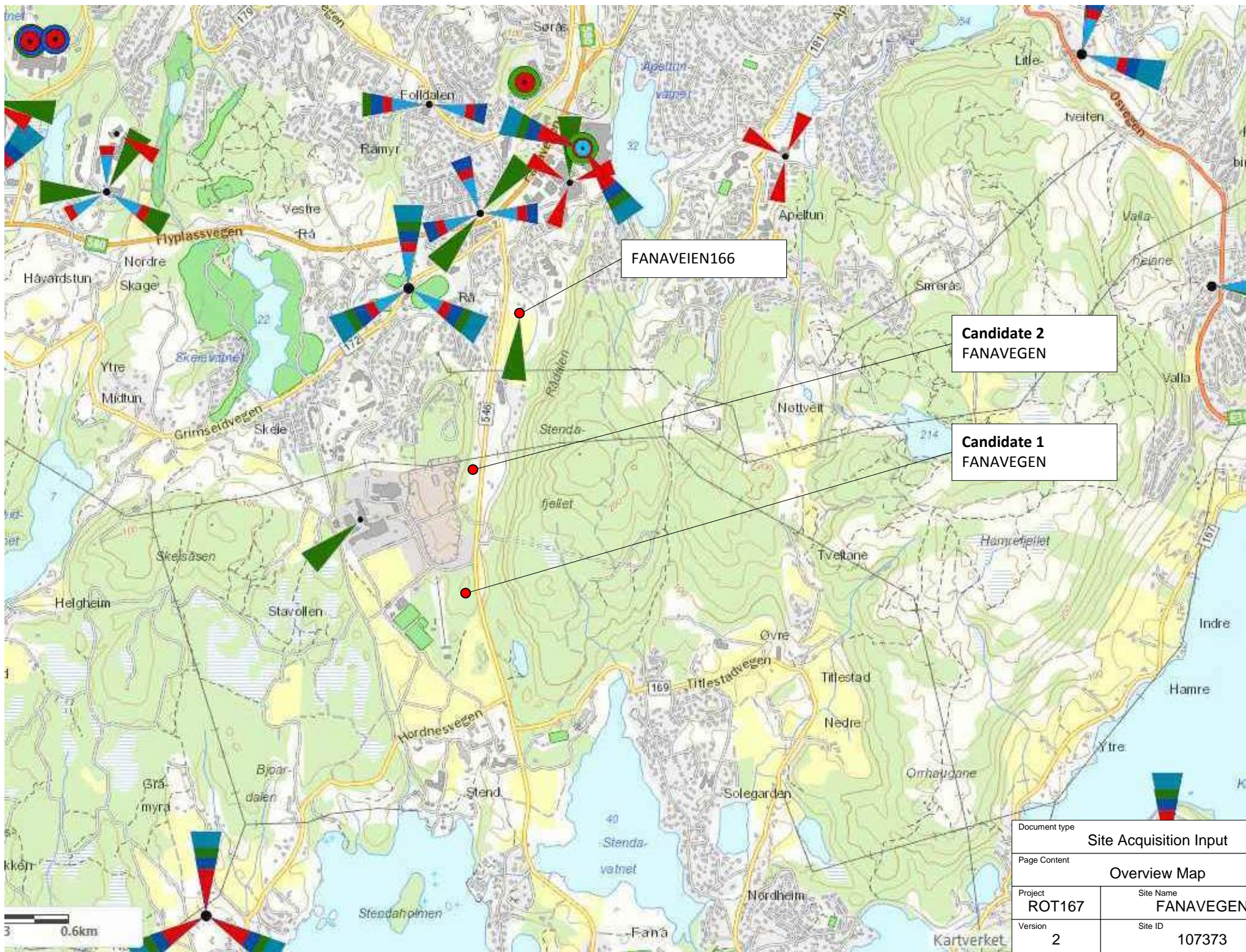
- Candidate 1 - FANAVEGEN: New Greenfield (24 m mast and cabin) close to the following coordinates: 60.283790, 5.324820
- Candidate 2 - FANAVEGEN: New Greenfield (24 m mast and cabin) close to the following coordinates: 60.278800, 5.326130

SCENARIO AND SITUATION IN ASTRIX:

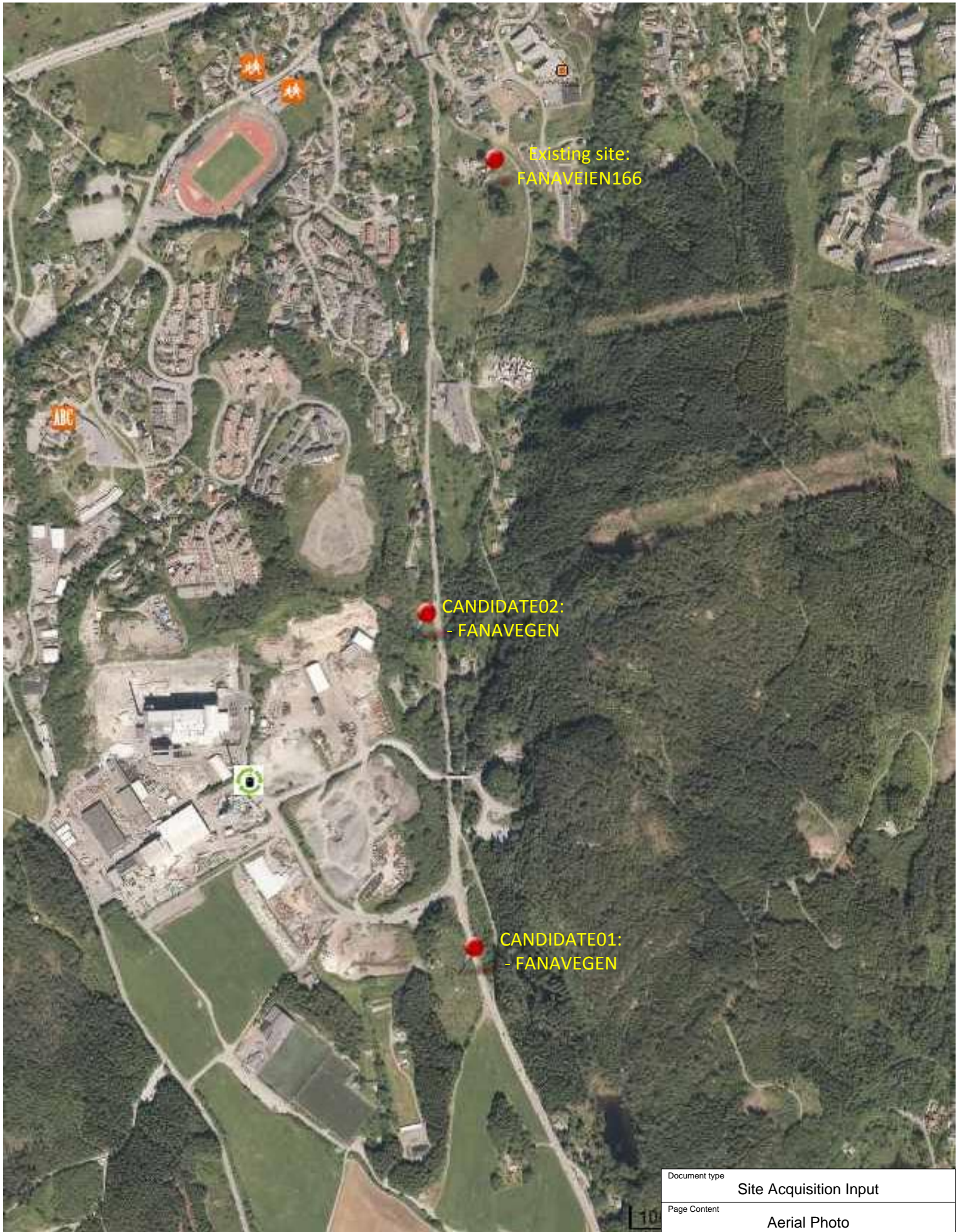
- Scenario: e897955
- Situation: e897955 – FANAVEIEN

Signature: FAV210

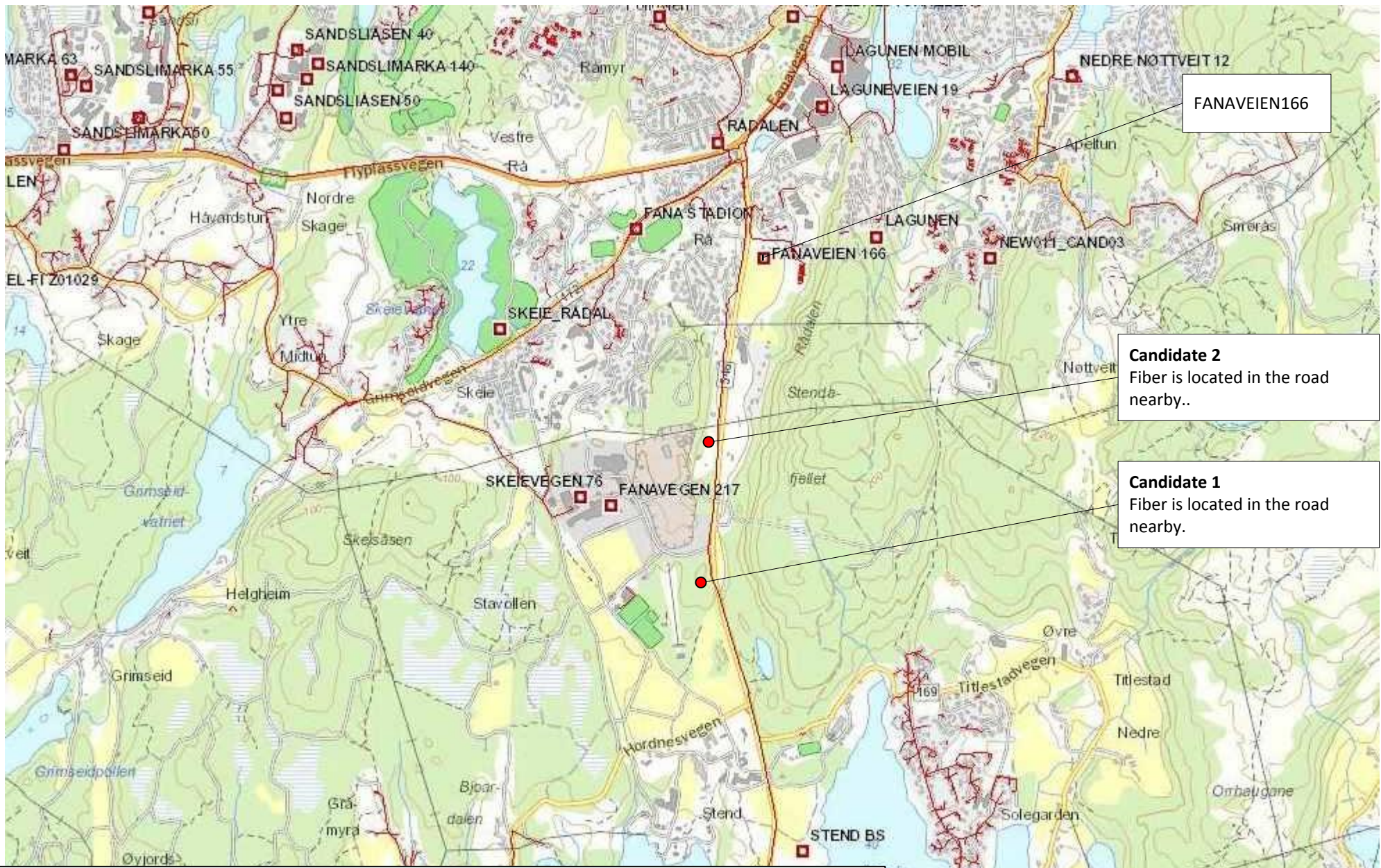
Document type		Site Acquisition Input	
Page Content		Project Notes	
Project	ROT167	Site Name	FANAVEGEN
Version	2	Site ID	107373



Document type		Site Acquisition Input	
Page Content		Overview Map	
Project	ROT167	Site Name	FANA VEIEN
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Document type		Site Acquisition Input	
Page Content		Aerial Photo	
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FANAVEIEN166

Candidate 2
Fiber is located in the road nearby..

Candidate 1
Fiber is located in the road nearby.

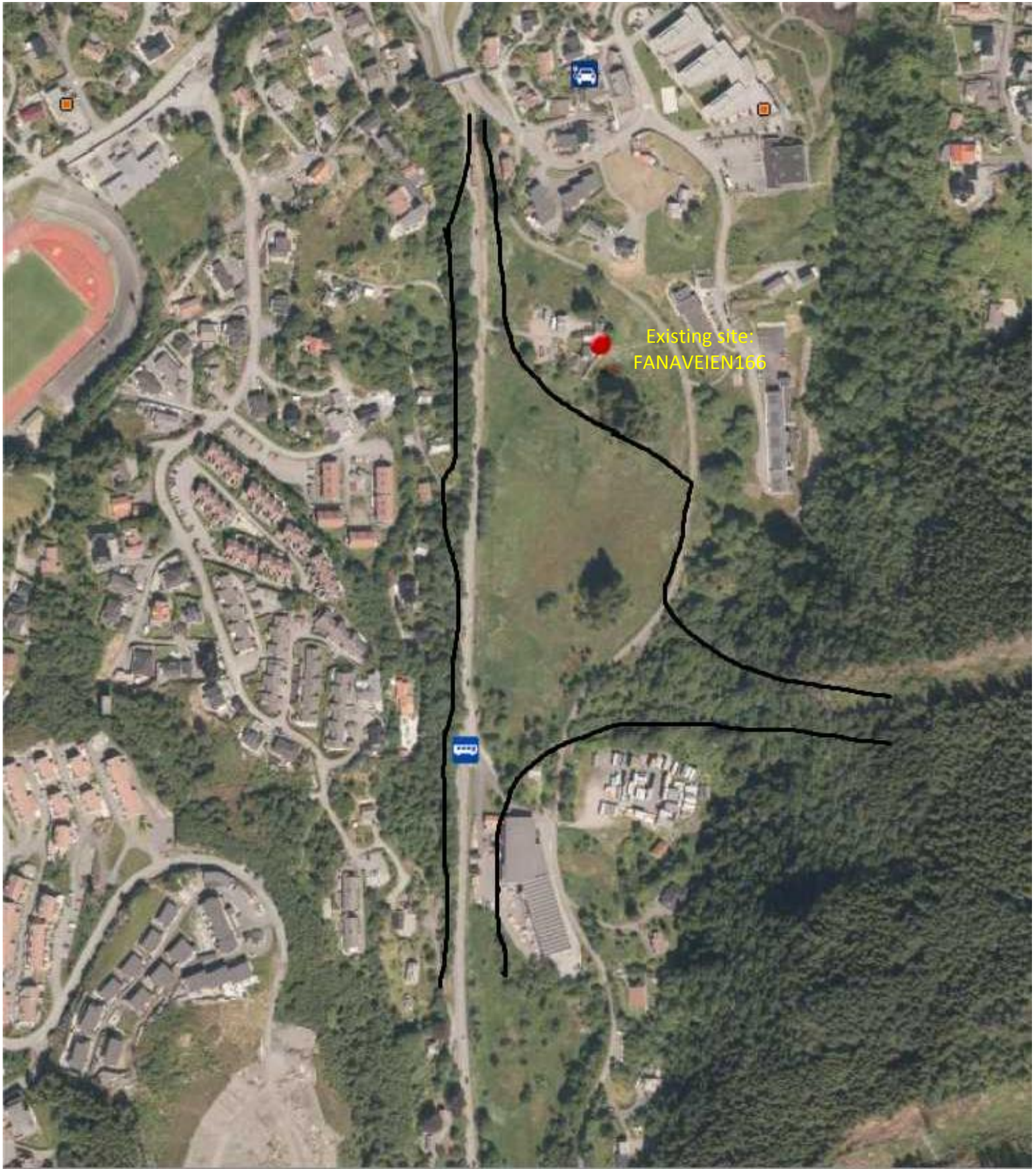
Comment from Sambandsplanlegger:
«CWDM-kostnaden er nødvendig for å fristille fibre som i dag er opptatt med SDH/CSS. Uten dette – ingen ledige fibre (-og ingen sambandsløsning for CSSen). Ellers ser man at den lokasjonen som gir billigst transportnettløsning er Cand. 1.»

Document type		Site Acquisition Input
Page Content		Backhaul Solutions I
Project	ROT167	Site Name FANAVEGEN
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Picture/animation from SVV pamphlet, showing the planned new E39 in the area.



Document type		Site Acquisition Input	
Page Content		Area overview road E39	
Project	ROT167	Site Name	FANAVEGEN
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Document type		Site Acquisition Input	
Page Content		Area overview with E39	
Project	ROT167	Site Name	FANAVEGEN
Version	2	Site ID	107373

Site Information

Site Name	ROT167_CANDIDATE01
Site ID	107373
Latitude	60.27880
Longitude	5.32613

Address	Fanavegen
Postal Code	5239 RÅDAL
Co location?	No
Site Owner	Telenor

Cell Information

Cell Name	System	# TRXs / Carriers	Antenna Type	Direction	M. tilt	El. tilt	Height
FANAVEGEN_G09_A	GSM900	2	80010887	0	0	12	23
FANAVEGEN_G09_B	GSM900	2	80010887	160	0	12	23
FANAVEGEN_L08_A_1	LTE800	1	80010887	0	0	12	23
FANAVEGEN_L08_B_1	LTE800	1	80010887	160	0	12	23
FANAVEGEN_L18_A_1	LTE1800	1	80010681	0	0	6	21
FANAVEGEN_L18_B_1	LTE1800	1	80010681	160	0	8	21

CABINET SOLUTION:

- Install one new BTS3900L version D cabinet for GSM and LTE.
- Build a cabin for radioequipment

COMBINER:

- Not applicable

ANTENNA PLACEMENT:

- Install 2 x 80010887 and 2 x 80010681 as shown in attached photo.
- Build a ST-B 30-6 mast, 24 m high.

RU SOLUTION:

- 2 x LRFU for L08, 2 x MRFUd for G09 and 2 x MRFUd for L18.

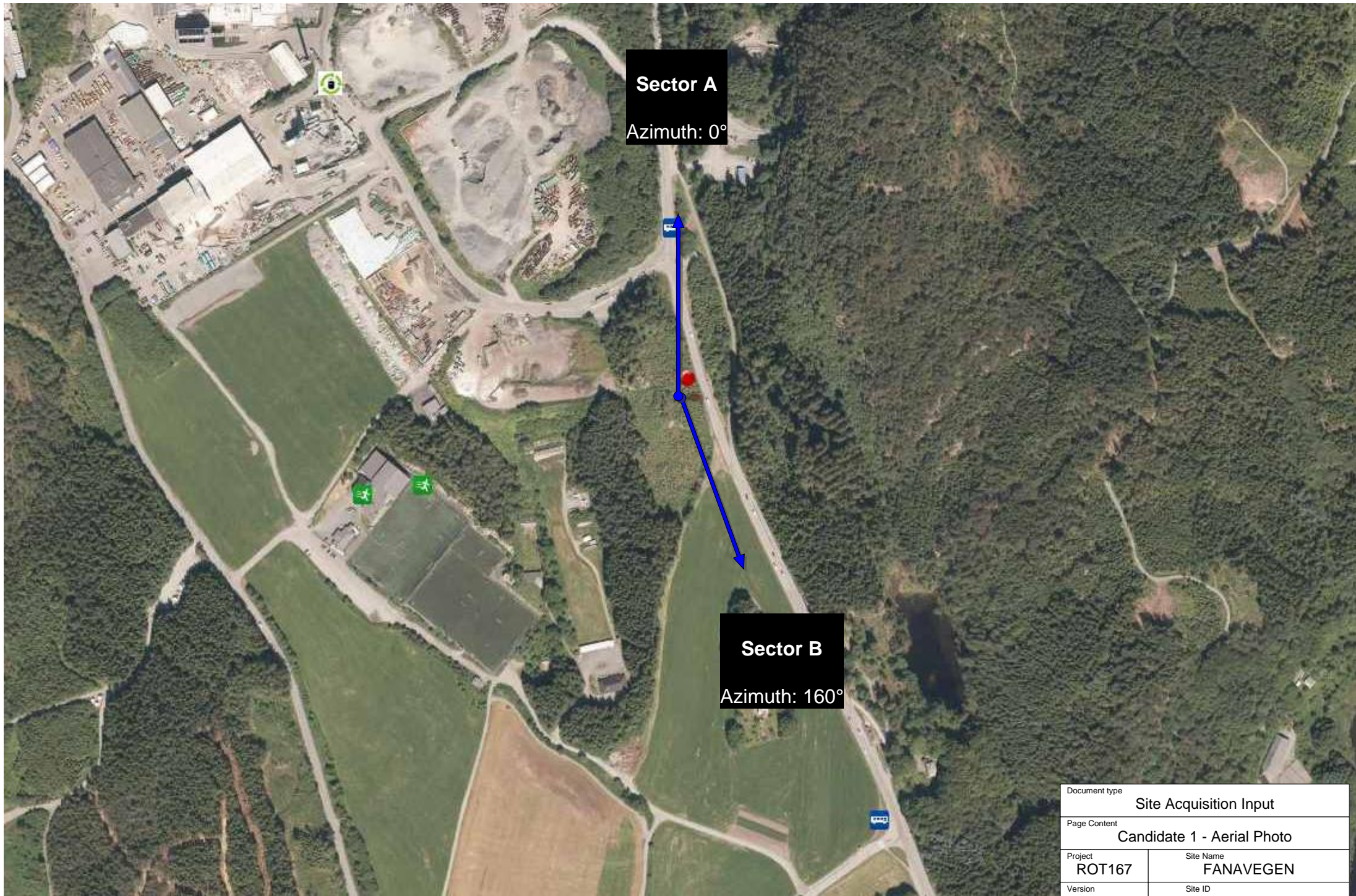
FEEDER SOLUTION:

- 4/2 x 7/8" feeder cables for each antenna. In total 12 feeder cables.

RET SOLUTION:

- Install 1 x SBT RET-kit on each 80010681-antenna.
- Install 2 x SBT-kit on each 80010887-antenna.

Document type		Site Acquisition Input	
Page Content			
Candidate 1 - Site and Cell Information			
Project	ROT167	Site Name	FANAVEGEN
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Sector A
Azimuth: 0°

Sector B
Azimuth: 160°

Document type		Site Acquisition Input	
Page Content		Candidate 1 - Aerial Photo	
Project	ROT167	Site Name	FANAVEGEN
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New LB; G09+L08
2 x 80010887

New HB; L18
2 x 80010681

The mast and cabin should be placed on top of the small hill and among the trees.
The mast should be 24 m. Need some kind of shelter for the radioequipment, wanted solution is cabin.
The exact placement is up to the landowners discretion, but big adjustments should be approved by radio planner.

Document type		Site Acquisition Input	
Page Content		Candidate 1 - Antenna Placement	
Project	ROT167	Site Name	FANAVEGEN
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Document type		Site Acquisition Input	
Page Content			
Candidate 1 - Antenna Placement II			
Project	ROT167	Site Name	FANAVEGEN
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CAND 1 *NEW Greenfield SITE*

Vurdere hytte som pri 1 alternativ er utendørs skap.

Graving nødvendig for tilførsler og fundamenteringer

AC tilførsel *avklares mot kraftselskap hvor denne kan hentes*

Fiber tilførsel

Jordingsnett

Fundament til mast

Fundamentering til hytte

- Tilkomst/muligheter for anleggsmaskiner og grave-traseer og -løyper bør utarbeides tidligst mulig.

- Tilkomst og parkeringsmulighet for arbeidere biler, tilhengere, personale bør avklares tidligst mulig.

48V:

Innendørs likeretter- må også ha plass til 19" RAC 1x ODF, 1xCSS

Utendørs likeretter - har innebygd 19" RAC ingen ekstra skap/rac nødvendig

Krav til backuptid er ikke gitt (sonekrav 2t)

Benytt TN-likeretter kalkulator

TKS:

Ved innendørs plassering MÅ kjølebehovet ivaretas. Benytt TN-frikjøl kalkulator.

Utendørs skap har integrert system for kjøling.

Document type		Site Acquisition Input	
Page Content		Candidate 1 - Site Input TP-S	
Project	ROT167	Site Name	FANAVEGEN
Version	2	Site ID	107373

Site Information

Site Name	ROT167_CANDIDATE02
Site ID	107372
Latitude	60.28358
Longitude	5.324700

Address	Fanavegen
Postal Code	5239 RÅDAL
Co location?	No
Site Owner	Telenor

Cell Information

Cell Name	System	# TRXs / Carriers	Antenna Type	Direction	M. tilt	El. tilt	Height
FANAVEGEN_G09_A	GSM900	2	80010887	10	0	12	23
FANAVEGEN_G09_B	GSM900	2	80010887	170	0	6	23
FANAVEGEN_L08_A_1	LTE800	1	80010887	10	0	12	23
FANAVEGEN_L08_B_1	LTE800	1	80010887	170	0	6	23
FANAVEGEN_L18_A_1	LTE1800	1	80010681	10	0	4	21
FANAVEGEN_L18_B_1	LTE1800	1	80010681	170	0	4	21

CABINET SOLUTION:

- Install one new BTS3900L version D cabinet for GSM and LTE.
- Build a cabin for radioequipment

COMBINER:

- Not applicable

ANTENNA PLACEMENT:

- Install 2 x 80010887 and 2 x 80010681 as shown in attached photo.
- Build a new ST-B 30-6 mast, 24 m high mast.

RU SOLUTION:

- 2 x LRFU for L08, 2 x MRFUd for G09 and 2 x MRFUd for L18.

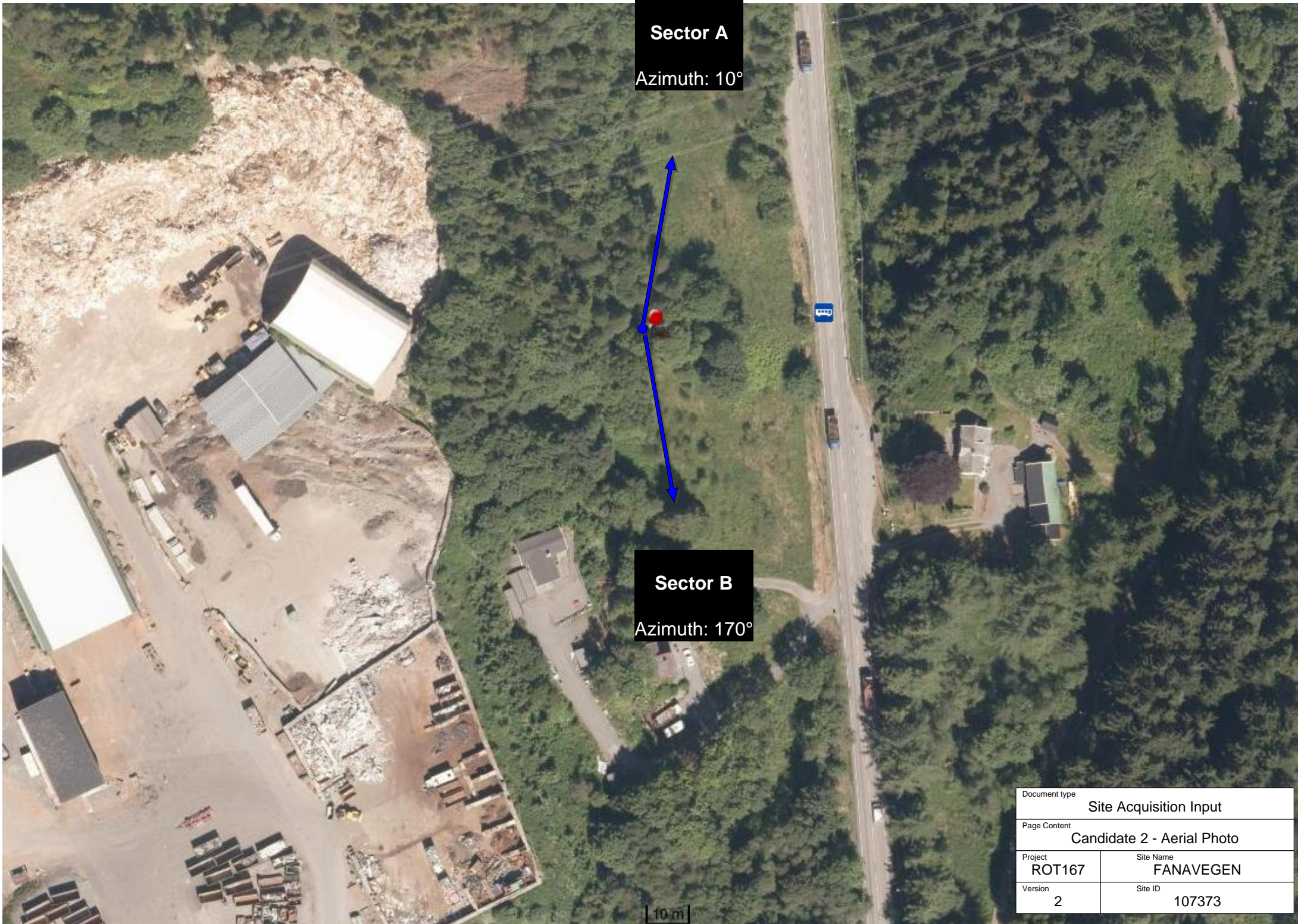
FEEDER SOLUTION:

- 4/2 x 7/8" feeder cables for each antenna. In total 12 feeder cables.

RET SOLUTION:

- Install 1 x SBT RET-kit on each 80010681-antenna.
- Install 2 x SBT-kit on each 80010887-antenna.

Document type		Site Acquisition Input	
Page Content			
Candidate 2 - Site and Cell Information			
Project	ROT167	Site Name	FANAVEGEN
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Sector A
Azimuth: 10°

Sector B
Azimuth: 170°

10 m

Document type		Site Acquisition Input	
Page Content		Candidate 2 - Aerial Photo	
Project	ROT167	Site Name	FANAVEGEN
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New LB; G09+L08
2 x 80010887

New HB; L18
2 x 80010681

Place cabin by mast inside
the group of trees.

The mast should be 24 m and it is a need to cut down trees to make room for mast. Need some kind of shelter for the radioequipment, wanted solution is cabin.
The exact placement need to be at least 25 m from high-voltage line.
Placement is up to the landowners discretion, but big adjustments should be approved by radio planner and meet the criteria of distance to high-voltage line .

Document type		Site Acquisition Input	
Page Content			
Candidate 2 - Antenna Placement I			
Project	ROT167	Site Name	FANAVEGEN
Version	2	Site ID	107373

CAND 2 *NEW Greenfield SITE*

Vurdere hytte som pri 1 alternativ er utendørs skap.

Graving nødvendig for tilførsler og fundamenteringer

AC tilførsel *avklares mot kraftselskap hvor denne kan hentes*

Fiber tilførsel

Jordingsnett

Fundament til mast

Fundamentering til hytte

- Tilkomst/muligheter for anleggsmaskiner og grave-traseer og -løyper bør utarbeides tidligst mulig.

- Tilkomst og parkeringsmulighet for arbeidere biler, tilhengere, personale bør avklares tidligst mulig.

48V:

Innendørs likeretter- må også ha plass til 19" RAC 1x ODF, 1xCSS

Utendørs likeretter - har innebygd 19" RAC ingen ekstra skap/rac nødvendig

Krav til backuptid er ikke gitt (sonekrav 2t)

Benytt TN-likeretter kalkulator

TKS:

Ved innendørs plassering MÅ kjølebehovet ivaretas. Benytt TN-frikjøl kalkulator.

Utendørs skap har integrert system for kjøling.

Document type		Site Acquisition Input	
Page Content			
Candidate 2 - Site Input TP-S			
Project	ROT167	Site Name	FANAVEGEN
Version	2	Site ID	107373