

FOLLOBANEN

STØYKARTLEGGING ANLEGGSAKTIVITET VED KLYPEN - OSLO S

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Orientering

Oppdragsgiver:
Società italiana per Condotte d'acqua S.p.A.

Områder: Klypen og Oslo S

Anleggsarbeider:

- Graving
- Spunting
- Micropiling / LCC / Jet grouting
- Massetransport



ENTREPRENØREN HAR FÅTT DISPENSASJON

VÅR OPPFATNING: ”DERMED, INGEN TALLFESTE GRENSEVERDIER
FOR STØYNIVÅER”

Driftsvilkår fra dispensasjon

«Støyplage skal reduseres til et minimum ved å unngå støyende aktiviteter i de mest støyfølsomme deler av dagen.»

Period	Mon-Fri 08-17	Mon-Fri 17-18	Mon-Fri 18-23 Mon-Fri 01-08	Mon-Fri 23-01 "Silent period" Saturdays Sundays
Outside shut down period	Low noise construction work Lime cement and steel core piling Sheet piling, pile drilling and demolition work*	Low noise construction work Lime cement and steel core piling	Low noise construction work	None
During shut down period	Low noise construction work Lime cement and steel core piling Sheet piling, pile drilling and demolition work			

STØYKARTLEGGING

HENSIKT: KARTLEGGE BERØRTE OMRÅDER NÅR DET FOREGÅR ANLEGG SARBEIDER

AMBISJON: DYNAMISK STØYKARTLEGGING

MOTIVASJONER

- FORUTSIKTBARHET
- BEDRE INFORMASJON TIL BERØRTE
- MULIGHET TIL Å TILPASSE FREMDRIFT
- UNNGÅ OVERDRIVELSER

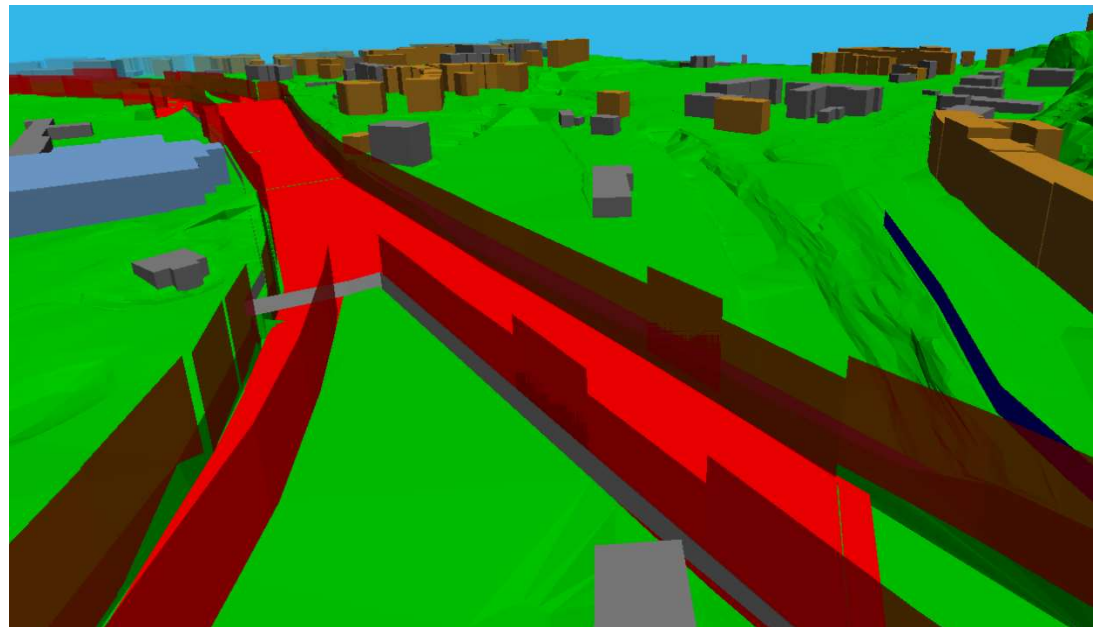
Beregninger

Støykilder:

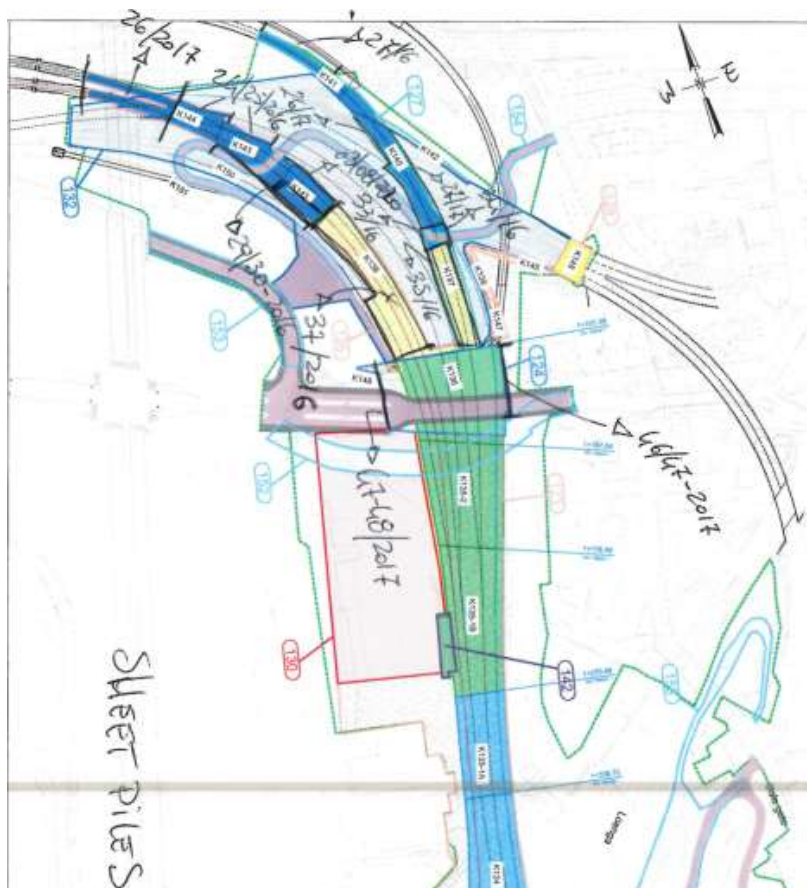
- Spunting
- Bakkeforsterking

Modellering:

- Spunting: vertikal arealkilde
- Micropiling / LCC: horisontal arealkilde
- Drift kilder iht Noise calendar
- Støyindikator: Leq / aktivitet

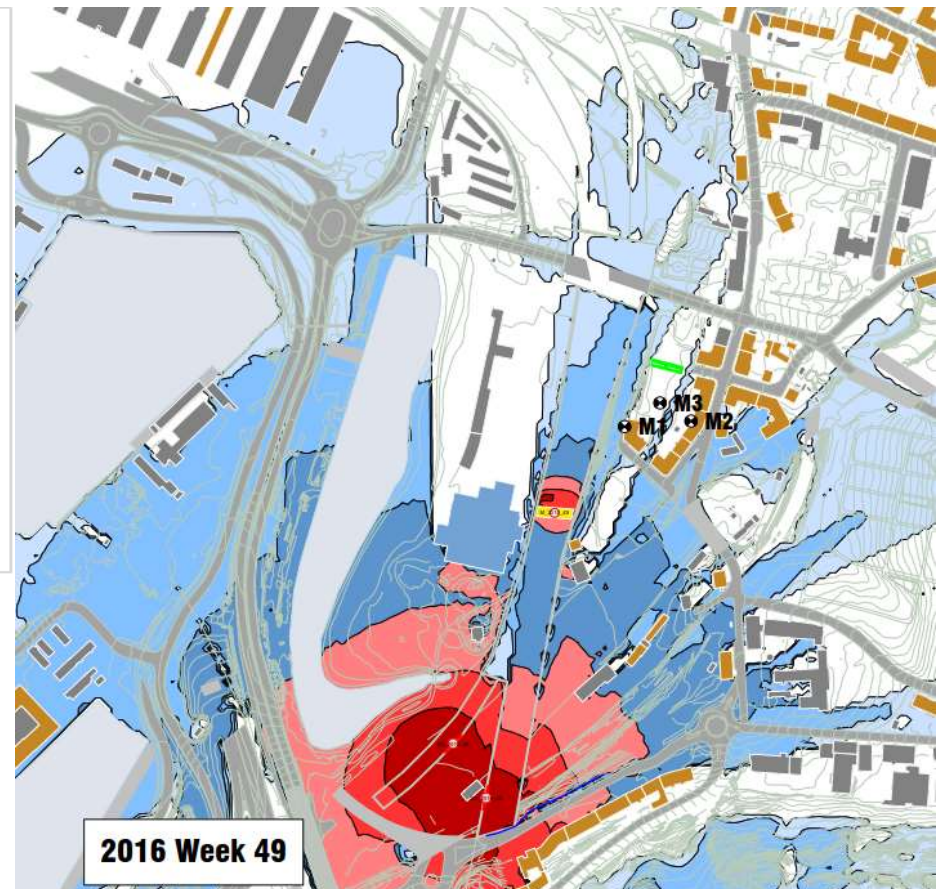
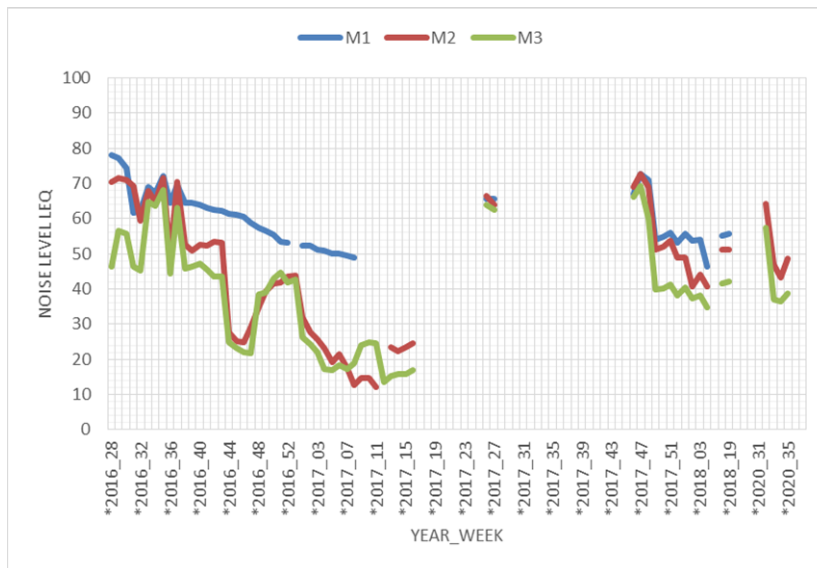


Noise calendar



NOISE CALENDAR and NOISE LIST									
Time:	2016-2017-2018-2019-2020								
Activity	Equipment	n.	Location	Duration of total activity		Daily duration of activities	Night duration of activities	Working Time	
						[% hr]	[% hr]		[hr]
Special area - Area 126 Haven	Sheet Piles	RG 19 T Pile driver with telescopic leader	1	AREA 126 (K143-K144) Part A,B,E	From 28.06.16	Until 30.06.16	80 %	20 %	24
	Sheet Piles	Lorry Crane	1	AREA 126 (K143-K144) Part A,B,E	From 28.06.16	Until 30.06.16	30 %	20 %	24
	Soil stabilitation	Rig Machine	1	AREA 126 (K143-K144) Part A,B,C,D	From 10.08.20	Until 01.09.20	80 %	0 %	16
	Sheet Piles	RG 19 T Pile driver with telescopic leader	1	AREA 126 (K143-K144) Part C,D	From 13.07.16	Until 30.07.16	80 %	20 %	24
	Sheet Piles	Lorry Crane	1	AREA 126 (K143-K144) Part C,D	From 13.07.16	Until 30.07.16	30 %	10 %	24
	Jet grouting	Rig Machine	1	AREA 126 (K143-K144) Part E	From 26.08.20	Until 11.09.20	80 %	0 %	16
	Sheet Piles	RG 19 T Pile driver with telescopic leader	1	AREA 126 (-K144)	From 26.06.17	Until 02.07.17	80 %	20 %	24
	Sheet Piles	Lorry Crane	1	AREA 126 (-K144)	From 26.06.17	Until 02.07.17	30 %	10 %	24
	Jet grouting	Rig Machine	1	AREA 126 (-K144)	From 31.07.20	Until 11.09.20	80 %	0 %	16
Subarea 126: Concrete tunnel & troughs for Østfold line	Sheet pilings	RG 19 T Pile driver with telescopic leader	1	Open section to Østfoldbanen - K138	From 09.09.16	Until 19.09.16	80 %	0 %	16
	Sheet pilings	Lorry Crane	1	Open section to Østfoldbanen - K138	From 09.09.16	Until 19.09.16	30 %	0 %	16
	Soil stabilitation	Rig Machine	1	Open section to Østfoldbanen - K138	From 19.09.16	Until 27.10.16	80 %	0 %	16
	Sheet pilings	RG 19 T Pile driver with telescopic leader	1	Open section to Østfoldbanen (phase 1 - K143 west)	From 15.07.16	Until 27.07.16	80 %	0 %	16
	Sheet pilings	Lorry Crane	1	Open section to Østfoldbanen (phase 1 - K143 west)	From 15.07.16	Until 27.07.16	30 %	0 %	16
	Soil stabilitation	Rig Machine	1	Open section to Østfoldbanen (phase 1 - K143 west)	From 27.10.16	Until 18.11.16	80 %	0 %	16
	Sheet pilings	RG 19 T Pile driver with telescopic leader	1	Open section to Østfoldbanen (phase 2 - K143 east)	From 03.08.20*	Until 03.08.20	80 %	0 %	16
	Sheet pilings	Lorry Crane	1	Open section to Østfoldbanen (phase 2 - K143 east)	From 03.08.20*	Until 03.08.20	30 %	0 %	16
	Soil stabilitation	Rig Machine	1	Open section to Østfoldbanen (phase 2 - K143 east)	From 03.08.20*	Until 04.08.20	80 %	0 %	16
	RG 19 T Pile driver			From	Until				

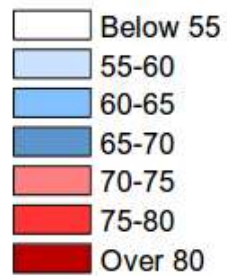
Resultater



Resultater

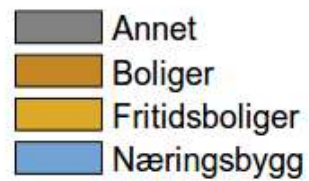
Noise map

Leq during operation

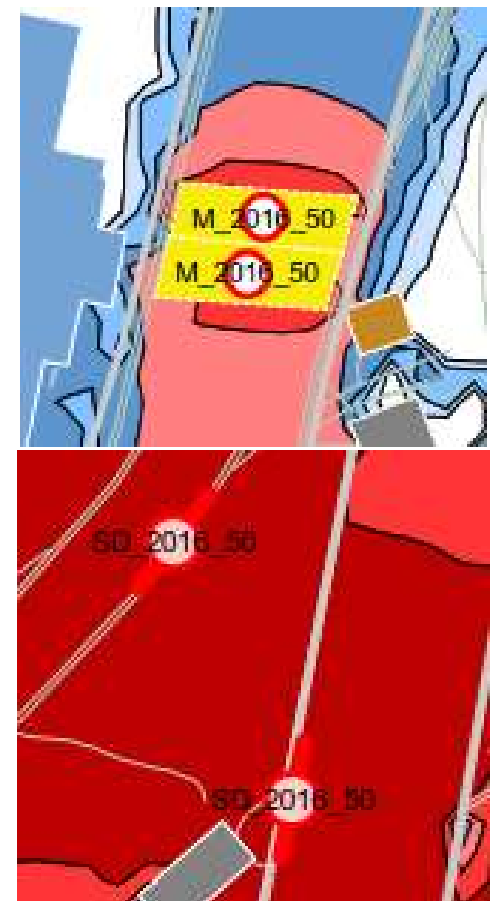
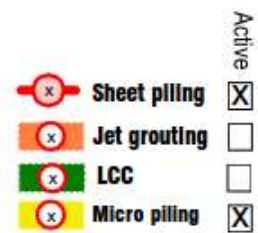


Grid resolution 5m x 5m
Height 1.5m above terrain

Building types



Noise sources



Resultater - Målinger

- Spunt: Forskjell beregninger – målinger ≤ 2 dB
- Mikropiling: Vanskelig å måle pga bakgrunnstøy

KONKLUSJON

DYNAMISK STØYKARTLEGGING ER MULIG



SWECO

