



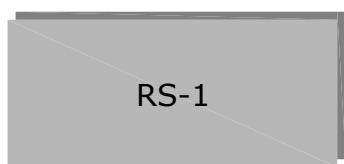
REGIONE EMILIA ROMAGNA  
PROVINCIA DI PARMA  
COMUNE DI BORGO VAL DI TARO



PROGETTO PER LA REALIZZAZIONE  
DEL PARCO EOLICO  
"MONTE CROCE DI FERRO"

Potenza complessiva 30 MW

PROGETTO DEFINITIVO  
DELL'IMPIANTO, DELLE OPERE CONNESSE E DELLE  
INFRASTRUTTURE INDISPENSABILI



VALUTAZIONE PREVISIONALE  
DI IMPATTO ACUSTICO

COMMITTENTE

**BORGOTARO  
WIND**

**Piazza del Grano 3  
39100 Bolzano, Italia**

GRUPPO DI LAVORO

Ing. GIUSEPPE STEFANINI: progettista opere civili, idrauliche e calcoli strutturali

Ing. PIETRO RICCIARDINI (GEOTECH srl): progettista opere elettriche e sottostazione

Ing. GIULIO BARTOLI, Dott. Geol. STEFANO MANTOVANI (MMA srl): SIA, studi paesaggistici, relazioni specialistiche, studio geologico geotecnico, studio di impatto acustico, simulazioni fotografiche

Dott.ssa. MARIA GRAZIA LISENO (NOSTOI srl): studio archeologico

Prof. DINO SCARAVELLI (Coop. S.T.E.R.N.A.): relazione faunistica, piano di monitoraggio faunistico, avifaunistico e chiroterteri, relazione floristico-vegetazionale

Arch. LUCIANO SERCHIA: consulente paesaggistico

Arch. STEFANO BOTTI (ABACUS sas) geom. CESARE SCHIATTI (STUDIO ARCO srl): rilievi aerofotogrammetrici e GNSS, documentazioni fotografiche da drone e da terra

Arch. MATTEO MASCIA: modellazione tridimensionale e renderizzazione fotorealistica

Dott. ENRICO CIRCELLI: consulenza micologica

Dott. Forestale FRANCESCO MARIOTTI: progettista interventi forestali compensativi

SCALA:

FIRME



*Ing. Giulio Bartoli*



*Stefano Mantovani*

Rev.	Descrizione	Redatto	Verificato	Approvato	Data
00	Prima emissione	Bartoli	Bartoli	Piovatizzi A.	Marzo 2022
01	Integrazione nota ARPAE SAC Parma Prot. n. 203102/2022 del 12/12/2022	Bartoli	Bartoli	Piovatizzi A.	Marzo 2023



**REGIONE EMILIA ROMAGNA**

**Comune di Borgo Val di Taro (Parma)**

**BORGOTAROWIND**

**Borgotaro Wind Srl**

Piazza del Grano 3, Bolzano, P.IVA e Cod. Fisc. 03127880213

**PROGETTO DEL  
PARCO EOLICO “MONTE CROCE DI FERRO”,  
DELLE OPERE CONNESSE E  
DELLE INFRASTRUTTURE INDISPENSABILI**

**STUDIO DI IMPATTO AMBIENTALE – PARTE II**

**VALUTAZIONE PREVISIONALE DI IMPATTO ACUSTICO RELATIVA AL  
PROGETTO DEL PARCO EOLICO**

(Legge n. 447 del 26/10/1995 - D.P.C.M. 01/03/1991 - D.P.C.M. 14/11/1997 - D. M. 16/03/1998 - Legge Regionale n. 3 del 12/02/2002 – D.M. 01/06/2022)

**Revisione 01 d.d. marzo 2023**





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## 1 PREMESSA

Il presente elaborato è stato revisionato al fine di recepire le integrazioni richieste con note prot. 203102/2022 trasmessa in data 12/12/2022 e prot. 205606/2022 trasmessa in data 15/12/2022 da parte di ARPAE Servizio Autorizzazioni e Concessioni di Parma ai seguenti paragrafi:

- E. Rumore
  - o E.1 Sorgenti, punti 12 e 13
  - o E.2 Propagazione, punto 14
  - o E.3 Ricettori, punto 15
  - o E.4 Misure fonometriche, punto 16
  - o E.5 Taratura, punto 17
  - o E.6 Presentazione dei dati e dei risultati, punto 18
  - o E.7 Opere di mitigazione, punto 19.

Il presente elaborato prende inoltre in esame le richieste avanzate dalla Regione Toscana – Direzione Ambientale ed Energia con nota del 20/10/2022 prot. 399616, con esclusivo riferimento all'allegata nota di ARPAT del 14/10/2022 prot. 0391675.

Il presente elaborato è stato altresì redatto tenendo in considerazione le modifiche progettuali introdotte rispetto alla proposta progettuale iniziale sottoposta ad iter procedurale di PAUR e che sono meglio descritte nell'elaborato RI-R.0 nelle premesse.



## 2 NOTE INTRODUTTIVE

Lo studio descritto nella presente relazione, oltre a rispondere alle richieste elencate al paragrafo 1, rappresenta l'adeguamento del precedente studio al Decreto 1 giugno 2022 del Ministero della Transizione Ecologica – *“Determinazione dei criteri per la misurazione del rumore emesso dagli impianti eolici e per il contenimento del relativo inquinamento acustico”*.

Il precedente studio infatti era stato sviluppato in data antecedente alla pubblicazione ed all'entrata in vigore del suddetto decreto, pur essendo stato inoltrato unitamente al progetto in data successiva.

Le valutazioni riportate nei paragrafi seguenti riguardano unicamente l'impatto acustico legato all'impianto eolico nella fase di esercizio, in quanto per la fase di cantiere né ARPAE, né ARPAT hanno avanzato richieste di ulteriori approfondimenti.



### 3 INQUADRAMENTO NORMATIVO

I principali riferimenti normativi riguardanti la valutazione di impatto acustico sono i seguenti:

- **D.P.C.M. 1 marzo 1991** art. 6 “*Limiti massimi di esposizione al rumore negli ambienti abitativi, e nell’ambiente esterno*”.
- **Legge 26 Ottobre 1995, n. 447** “*Legge quadro sull’inquinamento acustico*”.
- **D.P.C.M. 14 Novembre 1997** “*Determinazione dei valori limite delle sorgenti sonore*”.
- **D.M. 16 Marzo 1998** “*Tecniche di rilevamento e di misurazione dell’inquinamento acustico*”.
- **D.M. 1 Giugno 2022** “*Determinazione dei criteri per la misurazione del rumore emesso dagli impianti eolici e per il contenimento del relativo inquinamento acustico*”.
- **Legge Regionale n. 15 del 09/05/2001 s.m.i.** “Disposizioni in materia di inquinamento acustico”. Quest’ultima, stabilisce per i Comuni l’obbligo di procedere alla zonizzazione acustica del territorio secondo la metodologia operativa riportata nell’allegato della stessa Legge. La Legge Regionale suddivide il territorio comunale in sei zone, classificate secondo quanto disposto dal D.P.C.M. 1° marzo 1991, come di seguito riportato:

<b>Classe I, aree particolarmente protette:</b> aree nelle quali la quiete rappresenta un elemento di base per la loro utilizzazione, comprendenti le aree ospedaliere, le aree scolastiche, le aree destinate al riposo e allo svago, le aree residenziali rurali, le aree di particolare interesse urbanistico, le aree di parco
<b>Classe II, aree destinate ad uso prevalentemente residenziale:</b> aree urbane interessate prevalentemente da traffico veicolare locale, con bassa densità di popolazione, con limitata presenza di attività commerciali ed assenza di attività industriali e artigianali
<b>Classe III, aree di tipo misto:</b> aree urbane interessate da traffico veicolare locale o di attraversamento, con media densità di popolazione, con presenza di attività commerciali e uffici, con presenza di attività artigianali e assenza di attività industriali, aree rurali interessate da attività che impiegano macchine operatrici
<b>Classe IV, aree di intensa attività umana:</b> aree urbane interessate da intenso traffico veicolare, con alta densità di popolazione, con elevata presenza di attività commerciali, artigianali e uffici; aree in prossimità di strade di grande comunicazione e di linee ferroviarie, aree portuali, aree con limitata presenza di piccole industrie
<b>Classe V, aree prevalentemente industriali:</b> aree miste interessate prevalentemente da attività industriali, con presenza anche di insediamenti abitativi e attività di servizi
<b>Classe VI, aree esclusivamente industriali:</b> aree esclusivamente interessate da attività industriali e prive di insediamenti abitativi

Per ciascuna delle sei classi del territorio non dovranno superarsi i valori limite del livello equivalente di pressione sonora ponderato in scala “A”, riferiti al periodo diurno, dalle ore 6.00 alle ore 22.00, e notturno, dalle ore 22.00 alle ore 6.00, che vengono di seguito riportati:



<b>Classi di destinazione d'uso del territorio</b>	<b>L<sub>eqA</sub>[dB] periodo diurno</b>	<b>L<sub>eqA</sub>[dB] periodo notturno</b>
I - aree particolarmente protette	50	40
II- aree prevalentemente residenziali	55	45
III - aree di tipo misto	60	50
IV - aree di intensa attività umana	65	55
V - aree prevalentemente industriali	70	60
VI - aree esclusivamente industriali	70	70

La classificazione del territorio in zone individuate, in funzione delle diverse destinazioni d'uso, consente, per ognuna di queste zone, di fissare i limiti di accettabilità della rumorosità ambientale in termini di Valore assoluto di immissione, emissione, attenzione e qualità (D.P.C.M. 14/11/1997) e anche di verificare le prescrizioni dell'art.3 della Legge Regionale di cui sopra.

- **Piano di Classificazione Acustica del Comune di Borgo Val di Taro**
- **Piano di Classificazione Acustica del Comune di Pontremoli**



## 4 DEFINIZIONI

**Inquinamento acustico:** l'introduzione di rumore nell'ambiente abitativo o nell'ambiente esterno tale da provocare fastidio o disturbo al riposo ed alle attività umane, pericolo per la salute umana, deterioramento degli ecosistemi, dei beni materiali, dei monumenti, dell'ambiente abitativo o dell'ambiente esterno o tale da interferire con le legittime fruizioni degli ambienti stessi.

**Impianto eolico:** l'insieme di tutti gli aerogeneratori di un sito eolico, interconnessi tra loro, di proprietà di uno stesso soggetto giuridico e oggetto della medesima autorizzazione.

**Aerogeneratore:** dispositivo per la conversione dell'energia cinetica del vento in energia elettrica; può essere ad asse verticale o orizzontale. Ogni aerogeneratore è costituito, in generale, da una torre di sostegno, un rotore (mozzo e pale), il generatore elettrico, il sistema di controllo e in alcuni casi il moltiplicatore di giri e/o l'inverter.

**Distanza ricettore-aerogeneratore:** lunghezza del segmento che congiunge il punto di misura/valutazione (ricettore) e il mozzo dell'aerogeneratore.

**Aerogeneratore a vista:** aerogeneratore il cui rotore non sia totalmente schermato da rilievi del terreno lungo la linea retta ricettore-aerogeneratore tracciata sul corrispondente profilo altimetrico.

**Aerogeneratore potenzialmente impattante:** aerogeneratore di un impianto eolico soggetto a valutazione; nel caso di un impianto eolico con più aerogeneratori, aerogeneratore a vista con distanza ricettore-aerogeneratore inferiore a 1,5 km oppure, qualora  $\min\{3r_1 ; 20D\} \geq 1.5$  km, inferiore a  $\min\{3r_1 ; 20D\}$  dove  $r_1$  è la distanza tra il ricettore e l'aerogeneratore più vicino mentre D è il diametro del rotore.

**Dati di misura:** l'insieme dei valori misurati secondo le procedure del presente decreto (*nota del TCA: D.M. 1 giugno 2022*) riferito ad un periodo di dieci minuti.

**Dato meteorologico:** dato relativo alla velocità e direzione del vento al ricettore e agli aerogeneratori, presenza/assenza di precipitazioni, tipo di precipitazione (pioggia, neve, grandine).

**Dato utile:** dato di misura rimanente dopo l'eliminazione degli eventi anomali.

**Evento anomalo:** evento sonoro singolarmente identificabile, non riconducibile al rumore eolico, di natura eccezionale rispetto alla rumorosità tipica della zona nel periodotemporale di esecuzione delle misure/valutazioni (ad esempio le sirene, gli allarmi, gli spari, nonché i rumori antropici, rumori di animali, i passaggi di mezzi di trasporto, purché possano essere ritenuti assolutamente estranei ai luoghi, vale a dire atipici per l'area in esame, tenuto conto anche della stagionalità).

**Intervallo di tempo minimo di misurazione:** periodo temporale di acquisizione dei dati meteo e fonometrici pari a dieci minuti.

**Ambiente abitativo:** ogni ambiente interno ad un edificio destinato alla permanenza di persone o di comunità ed utilizzato per le diverse attività umane, fatta eccezione per gli ambienti destinati ad attività produttive per i quali resta ferma la disciplina di cui al decreto legislativo 15 agosto 1991, n. 277, salvo per quanto concerne l'immissione di rumore da sorgenti sonore esterne ai locali in cui si svolgono le attività produttive.

**Ricettore:** qualsiasi edificio adibito ad ambiente abitativo comprese le relative aree esterne di pertinenza, o ad attività lavorativa o ricreativa; aree naturalistiche vincolate, parchi pubblici ed aree esterne destinate ad attività ricreative ed allo svolgimento della vita sociale della collettività; aree territoriali edificabili già individuate dai vigenti piani regolatori generali e loro varianti generali,



vigenti al momento della presentazione dei progetti di massima relativi alla costruzione delle infrastrutture.

**Ricettore sensibile:** edificio adibito a scuola, ospedale, casa di cura e casa di riposo.

**Tempo di riferimento ( $T_R$ ):** rappresenta il periodo della giornata all'interno del quale si eseguono le misure. La durata della giornata è articolata in due tempi di riferimento: quello diurno compreso tra le ore 6:00 e le ore 22:00 e quello notturno compreso tra le ore 22:00 e le ore 6:00.

**Tempo di osservazione ( $T_o$ ):** è un periodo di tempo compreso in  $T_R$  nel quale si verificano le condizioni di rumorosità che si intendono valutare.

**Tempo di misura ( $T_m$ ):** all'interno di ciascun tempo di osservazione, si individuano uno o più tempi di misura  $T_m$  di durata pari o minore del tempo di osservazione in funzione delle caratteristiche di variabilità del rumore ed in modo tale che la misura sia rappresentativa del fenomeno.

**Livello di immissione specifico dell'impianto eolico  $L_E$ :** livello di rumore prodotto dall'impianto eolico in ambiente esterno, in campo libero o in facciata ad un ricettore, espresso come livello continuo equivalente di pressione sonora ponderato A nei due periodi di riferimento, diurno (6:00-22:00) e notturno (22:00-6:00), acquisito e valutato secondo i criteri di misura ed elaborazione indicati dal presente decreto (*nota del TCA: D.M. 1 giugno 2022*).

**Livello di rumore residuo riferito alla sorgente eolica  $L_R$ :** livello di rumore presente in ambiente esterno in assenza della specifica sorgente impianto eolico ed espresso come livello continuo equivalente di pressione sonora ponderato A nei due periodi di riferimento diurno (6:00-22:00) e notturno (22:00-6:00), acquisito e valutato secondo i criteri di misura ed elaborazione indicati dal presente decreto (*nota del TCA: D.M. 1 giugno 2022*).

**Livello di rumore ambientale  $L_A$ :** livello di rumore costituito dall'insieme del rumore residuo e da quello prodotto dall'impianto eolico nel punto di valutazione; è espresso come livello continuo equivalente di pressione sonora ponderato A nei due periodi di riferimento diurno (6:00-22:00) e notturno (22:00-6:00) ed acquisito secondo le tecniche di misura ed elaborazione indicate dal presente decreto (*nota del TCA: D.M. 1 giugno 2022*).

**Livello differenziale di rumore ( $L_D$ ):** differenza tra il livello di rumore ambientale ( $L_A$ ) e quello di rumore residuo ( $L_R$ ):

$$L_D = (L_A - L_R)$$

**Livelli dei valori efficaci di pressione sonora ponderata "A":  $L_{AS}$ ,  $L_{AF}$ ,  $L_{AI}$ :** esprimono i valori efficaci in media logaritmica mobile della pressione sonora ponderata "A" LPA secondo le costanti di tempo "slow", "fast", "impulse".

**Livelli dei valori massimi di pressione sonora  $L_{ASmax}$ ,  $L_{AFmax}$ ,  $L_{AI max}$ :** esprimono i valori massimi della pressione sonora ponderata in curva "A" e le costanti di tempo "slow", "fast", "impulse".

**Livello continuo equivalente di pressione sonora ponderata "A":** valore del livello di pressione sonora ponderata "A" di un suono costante che, nel corso di un periodo specificato T, ha la medesima pressione quadratica media di un suono considerato, il cui livello varia in funzione del tempo



$$L_{Aeq,T} = 10 \log \left[ \frac{1}{t_2 - t_1} \int_0^T \frac{p_A^2(t)}{p_0^2} dt \right] dB(A)$$

dove  $L_{Aeq}$  è il livello continuo equivalente di pressione sonora ponderata "A" considerato in un intervallo di tempo che inizia all'istante  $t_1$  e termina all'istante  $t_2$ ;  $p_A(t)$  è il valore istantaneo della pressione sonora ponderata "A" del segnale acustico in Pascal (Pa);  $p_0 = 20$  microPa è la pressione sonora di riferimento.

**Livello di emissione:** è il livello continuo equivalente di pressione sonora ponderato "A", dovuto alla sorgente specifica. È il livello che si confronta con i limiti di emissione.

**Velocità media del vento al ricettore ( $v_r$ ):** valore medio della velocità del vento misurata con apposito anemometro montato in prossimità del ricettore con le modalità descritte nel presente decreto (nota del TCA: D.M. 1 giugno 2022).

**Velocità media del vento al mozzo ( $V$ ):** valore medio della velocità del vento misurata al mozzo per ogni aerogeneratore potenzialmente impattante.

**Direzione prevalente del vento al mozzo ( $\theta^\circ$ ):** moda (valore in gradi sessadecimali) della direzione del vento al mozzo per ogni aerogeneratore potenzialmente impattante.

**Condizioni di vento più gravose:** condizioni di vento che favoriscono la propagazione del rumore dall'aerogeneratore al ricettore (condizione sottovento); in particolare, si devono intendere tali tutte le condizioni in cui gli aerogeneratori sono attivi a regimi massimi e la direzione del vento al mozzo è compresa entro un angolo di  $\pm 45^\circ$  rispetto alla proiezione al suolo della congiungente aerogeneratore-ricettore.

**Valori limite di emissione:** il valore massimo di rumore che può essere emesso da una sorgente sonora, misurato in prossimità della sorgente stessa. Con l'adozione della zonizzazione acustica da parte dei comuni valgono i seguenti limiti di emissione (Tabella B)

Classi di destinazione d'uso del territorio	tempi di riferimento	
	diurno (06.00 - 22.00)	notturno (22.00 - 06.00)
I - aree particolarmente protette	45	35
II - aree prevalentemente residenziali	50	40
III - aree di tipo misto	55	45
IV - aree di intensa attività umana	60	50
V - aree prevalentemente industriali	65	55
VI - aree esclusivamente industriali	65	65

**Valori limite di immissione:** valore massimo di rumore che può essere immesso da una o più sorgenti sonore nell'ambiente abitativo o nell'ambiente esterno, misurato in prossimità dei ricettori.

Con l'adozione della zonizzazione acustica da parte dei comuni valgono i seguenti limiti di immissione (Tabella C)



Classi di destinazione d'uso del territorio	tempi di riferimento	
	diurno (06.00 - 22.00)	notturno (22.00 - 06.00)
I - aree particolarmente protette	50	40
II - aree prevalentemente residenziali	55	45
III - aree di tipo misto	60	50
IV - aree di intensa attività umana	65	55
V - aree prevalentemente industriali	70	60
VI - aree esclusivamente industriali	70	70

**Valori di attenzione:** il valore di rumore che segnala la presenza di un potenziale rischio per la salute umana o per l'ambiente.

**Valori di qualità:** i valori di rumore da conseguire nel breve, nel medio e nel lungo periodo con le tecnologie e le metodiche di risanamento disponibili, per realizzare gli obiettivi di tutela previsti dalla Legge 26 Ottobre 1995, n. 447.

Classi di destinazione d'uso del territorio	tempi di riferimento	
	diurno (06.00 - 22.00)	notturno (22.00 - 06.00)
I - aree particolarmente protette	47	37
II - aree prevalentemente residenziali	52	42
III - aree di tipo misto	57	47
IV - aree di intensa attività umana	62	52
V - aree prevalentemente industriali	67	57
VI - aree esclusivamente industriali	70	70

**Fattore correttivo ( $K_i$ ):** è la correzione in dB(A) introdotta per tener conto della presenza di rumori con componenti impulsive, tonali o di bassa frequenza il cui valore è di seguito indicato:

per la presenza di componenti impulsive  $K_i = 3$  dB

per la presenza di componenti tonali  $K_T = 3$  dB

per la presenza di componenti in bassa frequenza  $K_B = 3$  dB

I fattori di correzione non si applicano alle infrastrutture dei trasporti.





## 5 STRUMENTAZIONE DI MISURA

Il D.M. 01/06/2022, *Allegato 1 - Norme tecniche per l'esecuzione delle misure, punto 1. Strumentazione di misura*, fissa le caratteristiche che devono avere gli strumenti utilizzati per l'acquisizione dei dati; di seguito se ne riporta un estratto.

### Misurazioni acustiche

- Catena fonometrica e calibratore acustico di classe 1, conformi alle specifiche dettate dal D.M. 16/03/1998 (vedi sotto)
- Cuffia antivento con diametro  $\geq 90$  mm
- Sistema di registrazione audio con impostazione di soglia per l'individuazione di eventi sonori anomali ed eventuale registrazione audio per l'intero tempo di misura.

Specifiche strumentazione secondo il D.M. 16/03/1998:

- Le misure di livello equivalente dovranno essere effettuate direttamente con un fonometro conforme alla classe 1 delle norme EN 60651/1994, EN 60804/1994 e IEC 61672.
- I filtri e i microfoni utilizzati per le misure devono essere conformi, rispettivamente, alle norme EN 61260/1995 (IEC 1260) e EN 61094-1/1994, EN 61094-2/1993, EN 61094-3/ 1995, EN 61094-4/1995.
- I calibratori devono essere in classe 1, secondo IEC 942:1988 (CEI 29-4).
- La strumentazione e/o la catena di misura, prima e dopo ogni ciclo di misura, deve essere controllata con un calibratore di classe 1, secondo la norma IEC 942/1988. Le misure fonometriche eseguite sono valide se le calibrazioni effettuate prima e dopo ogni ciclo di misura, differiscono al massimo di 0.5 dB.
- Gli strumenti ed i sistemi di misura devono essere provvisti di certificato di taratura e controllati almeno ogni due anni per la verifica della conformità alle specifiche tecniche. Il controllo periodico deve essere eseguito presso laboratori accreditati da un servizio di taratura nazionale ai sensi della legge 11 agosto 1991, n. 273.

### Acquisizione dati meteorologici

- Pioggia (risoluzione  $\leq 0.2$  mm)
- Velocità vento (risoluzione  $\leq 0.5$  m/s; intervallo di acquisizione: almeno  $0 \div 20$  m/s)
- Direzione vento (risoluzione  $\leq 3^\circ$ )
- Temperatura (risoluzione  $\leq 0.2$  °C).

**Per la misura del rumore ambientale residuo ai ricettori, per il presente studio è stato utilizzato un fonometro 01dB mod. Fusion 40CD 4G EU Expert.**

**Per le calibrazioni è stato utilizzato un calibratore Brüel & Kjær Type 4231.**

**Per la misura dei dati meteorologici è stato utilizzato un sistema di monitoraggio meteo Davis Instrument ISS Vantage Pro 2 con consolle Vantage Vue per la memorizzazione e lo scarico dati.**



## 6 NORME TECNICHE PER L'ESECUZIONE DELLE MISURE

Il D.M. 01/06/2022, *Allegato 1 - Norme tecniche per l'esecuzione delle misure, punti 2. Parametri da acquisire con la strumentazione, 4. Postazioni di misura e 5. Condizioni di misura*. Strumentazione di misura, fissa le caratteristiche che devono avere gli strumenti utilizzati per l'acquisizione dei dati; di seguito se ne riporta un estratto.

*“2. Parametri da acquisire con la strumentazione*

### Dati acustici

- *Profilo temporale del  $L_{Aeq}$  su base temporale di 1 s*
- *$L_{Aeq,10min}$  ( $L_{Aeq}$  valutato su intervalli temporali di 10 minuti)*
- *Spettro acustico del  $L_{Aeq,10min}$  in bande di terzi di ottava tra 20 Hz e 20.000 Hz*

### Dati meteorologici

- *Media del modulo della velocità del vento su intervalli temporali di 10 minuti*
- *Moda della direzione del vento al ricettore su intervalli temporali di 10 minuti*
- *Precipitazioni (pioggia, neve, grandine) su intervalli temporali di 10 minuti*
- *Temperatura media su intervalli temporali di 10 minuti*

...

*4. Postazioni di misura*

### Misure in campo libero

- *Posizione microfono: in corrispondenza di un ricettore, ad almeno 5 m di distanza da superfici riflettenti, da alberi o da possibili sorgenti interferenti*
- *Altezza del microfono: 1.8 m dal suolo ovvero in accordo con la reale o ipotizzata posizione del ricettore*
- *Altezza sonda meteo:  $\geq 3$  m dal suolo; la sonda meteo deve essere posizionata il più vicino possibile al microfono ma sempre ad almeno 5 m da elementi interferenti in grado di produrre turbolenze (come ad esempio: vegetazione ad alto fusto, strutture edilizie) e in posizione tale che possa ricevere vento da tutte le direzioni.*

*5. Condizioni di misura*

*I rilevamenti fonometrici devono essere eseguiti in conformità a quanto disposto dall'Allegato B del D.M. 16/03/1998:*

- *Assenza di precipitazioni atmosferiche*
- *Assenza di nebbia e/o neve al ricettore*
- *Velocità del vento al ricettore  $\leq 5$  m/s (si deve intendere la velocità media su 10 minuti misurata con la centralina in prossimità del ricettore)*
- *Microfono munito di cuffia antivento (per le misure in esterno)*
- *Compatibilità tra le condizioni meteo durante i rilevamenti e le specifiche del sistema di misura di cui alla classe 1 della norma IEC 61672-1:2013”.*

Per quanto riguarda la misura del livello di rumore residuo  $L_R$ , il D.M. 01/06/2023 non riporta indicazioni in merito alle modalità e alle grandezze da acquisire specificatamente in fase previsionale. Per il presente studio si è ritenuto ragionevole fare riferimento all'*Allegato 2* –



*Procedura che prevede lo spegnimento degli aerogeneratori potenzialmente impattanti, punti 1. Tempi di misura, 2. Elaborazione dei dati e 3. Espressione dei dati.*

Di seguito si riportano alcuni estratti di interesse.

#### *“1. Tempi di misura*

##### *Misurazione del Livello di rumore residuo riferito alla sorgente eolica, $L_R$ in ambiente esterno*

*...si richiederà di fermare gli aerogeneratori potenzialmente impattanti per 24 ore, nel corso delle quali la velocità del vento all'aerogeneratore dovrà risultare per almeno 12 ore compresa fra la velocità di cut-in (soglia di avvio del funzionamento degli aerogeneratori) e la velocità di cut-off (stop delle pale per motivi di sicurezza), ovvero condizioni di normale funzionamento degli aerogeneratori; qualora tale condizione non si realizzi, verrà adeguatamente prolungato l'intervallo di fermo dell'impianto. Durante questo intervallo di tempo si procederà alla rilevazione del rumore residuo con modalità identiche a quelle utilizzate per la misura del rumore ambientale.*

#### *2. Elaborazione dei dati*

*Il primo passaggio consiste nel depurare i dati rilevati al fine di ottenere i dati utili, sui quali si effettueranno le elaborazioni. Occorre dunque eliminare le rilevazioni afflitte da eventi anomali e/o accidentali, scartando tutti i periodi di misura in cui si sono verificate condizioni non conformi o comunque ritenute inidonee perché non riconducibili al rumore eolico, al rumore residuo tipico dell'area di indagine.*

*Per quanto concerne la validità dei dati rilevati in concomitanza ad eventi anomali, la misura nel periodo minimo di 10 minuti è considerata accettabile se la frazione del tempo per cui si hanno dati validi sia superiore al 50% del tempo complessivo.*

*Devono anche essere scartati anche i dati di  $L_{Aeq,10min}$  sul cui corrispondente intervallo temporale di 10 minuti non risultano disponibili altri parametri necessari per le elaborazioni ed i raffronti (ad es. Velocità media del vento a terra; Velocità media del vento al mozzo, ecc.).*

*...*

##### *Livello di rumore residuo riferito alla sorgente eolica, $L_R$*

*– Per ogni postazione di misura e, separatamente, per periodo diurno e per periodo notturno, si potranno riordinare i dati utili rimasti in una tabella nella quale ogni riga corrisponde ad un dato utile di 10 minuti, caratterizzato dalla data e dall'orario del rilevamento, e nelle colonne sono riportati, per ogni dato utile, i valori dei seguenti parametri:*

- $L_{Aeq,10min}$*
- Velocità media del vento a terra, ossia al ricettore ( $v_r$ )*
- Velocità media del vento al mozzo per ogni aerogeneratore potenzialmente impattante ( $V$ )*
- Direzione prevalente del vento al mozzo per ogni aerogeneratore potenzialmente impattante ( $\vartheta^\circ$ )*

*Si arriverà dunque ad avere a disposizione una tabella con un numero massimo di  $6 \times 16 = 96$  righe per il periodo diurno e di  $6 \times 8 = 48$  righe per il periodo notturno...*

*Si procederà poi ad operare sui valori di  $L_{Aeq,10min}$  una partizione in classi di velocità del vento al ricettore ( $v_r$ ) di ampiezza 1 unità (da 0 a 1, da 1 a 2, da 2 a 3, da 3 a 4 e da 4 a 5 m/s).*

*Ciò viene fatto in pratica operando un riordino dei dati della tabella precedente in senso crescente sulla colonna della  $v_r$ .*

*Quindi per ognuna delle 5 classi di velocità media del vento al ricettore si effettuerà la media aritmetica dei valori di  $L_{Aeq,10min}$ .*



*Al termine dell'elaborazione, per ogni periodo di riferimento, per ciascuna classe di velocità del vento rilevata al ricettore durante il fermo obbligato degli aerogeneratori, si avrà quindi un valore di  $L_{Aeq,10min}$  medio ( $\langle L_R \rangle$ ), rappresentante del Rumore Residuo per quella classe di velocità.*

...

### **3. Espressione dei risultati**

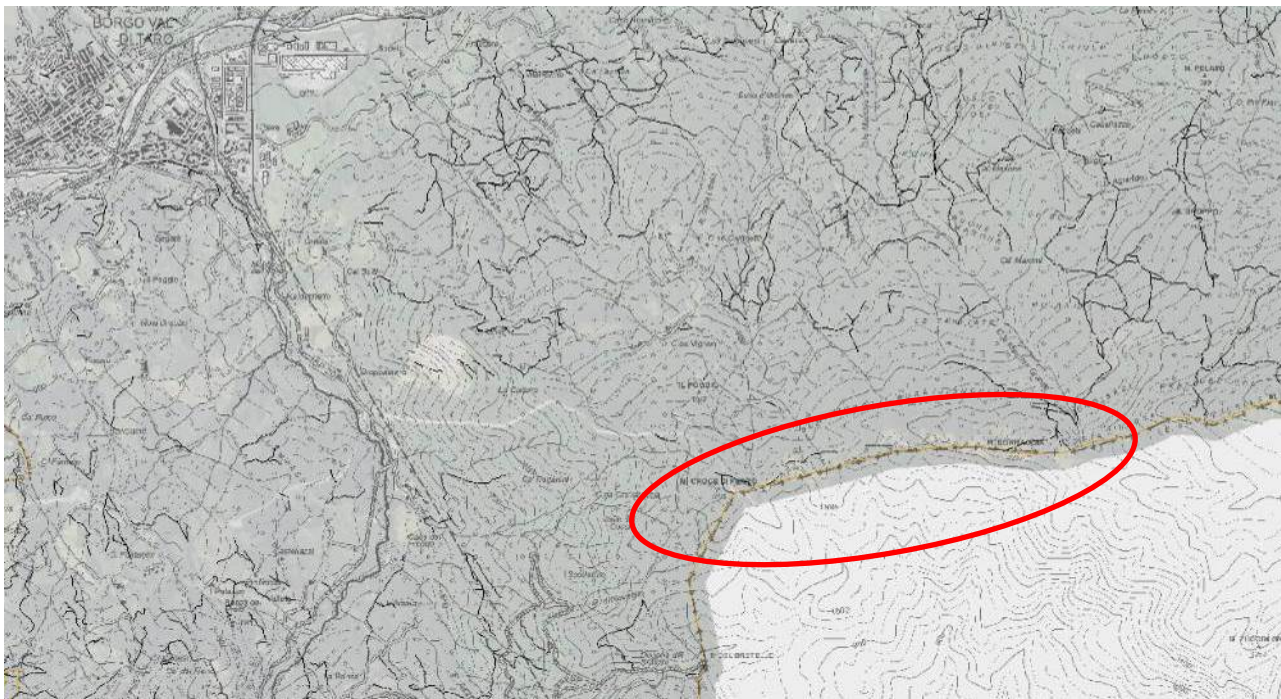
*...Tenuto conto che ogni periodo di riferimento da ricostruire potrebbe avere dei dati di  $L_{Aeq,10min}$  mancanti, si ritiene valida la ricostruzione nel caso in cui siano presenti almeno il 70% di dati validi. Vale a dire  $96 \times 70\% = 67$  dati validi di  $L_{Aeq,10min}$  per ogni periodo diurno e 34 dati validi di  $L_{Aeq,10min}$  per ogni periodo notturno”.*



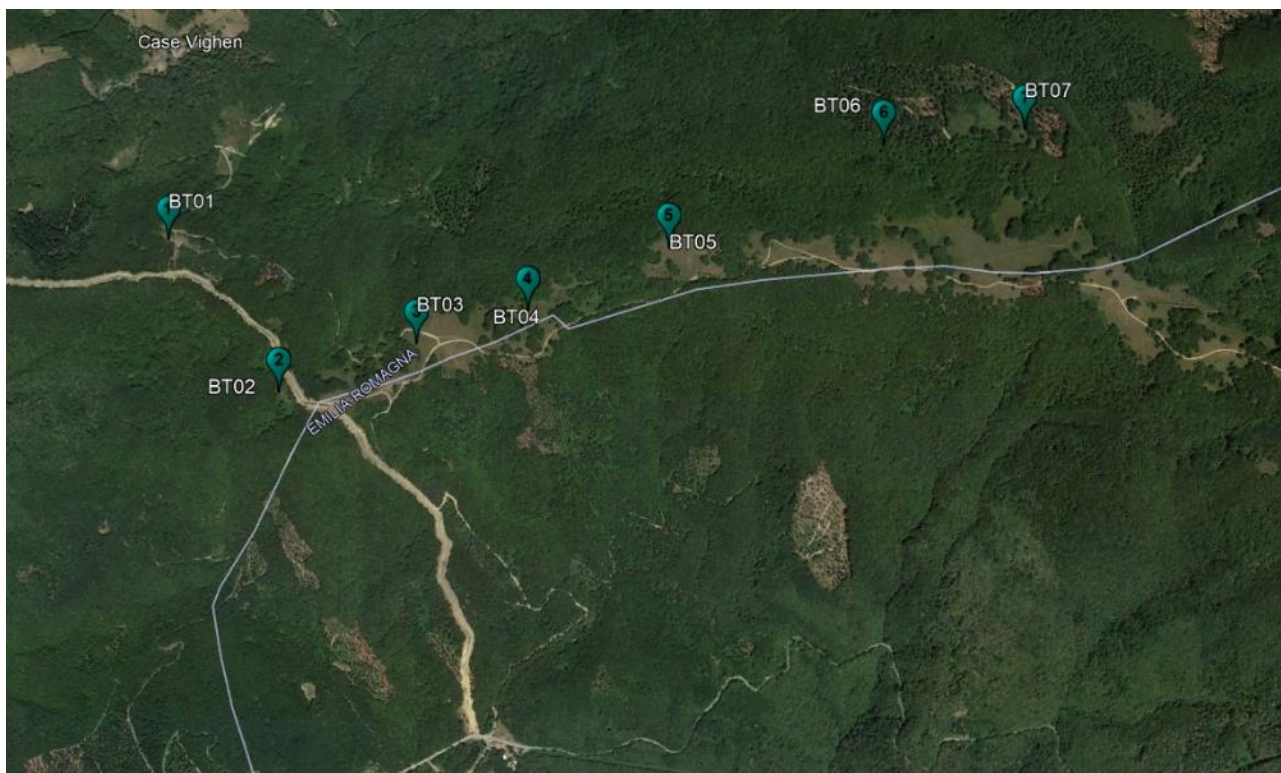


## 7 UBICAZIONE E DESCRIZIONE DELL’OPERA

Il parco eolico oggetto della presente relazione è situato sul limite sud del territorio comunale di Borgo Val di Taro (PR), nella zona limitrofa al confine regionale, compresa tra il Monte Croce di Ferro ed il Monte Borraccia (Figura 7.1 e Figura 7.2).



**Figura 7.1 - Inquadramento del sito da DBTR – Carta Tecnica Regionale**



**Figura 7.2 - Ortofoto del sito di riferimento con l'indicazione della posizione degli aerogeneratori**



Il progetto generale descritto nella presente relazione nasce dalla volontà della Società Proponente di realizzare un parco eolico per la produzione di energia elettrica denominato “Monte Croce di Ferro”, da costruire lungo il crinale omonimo posto nel territorio del comune di Borgo Val di Taro (PR).

L'impianto, proposto dalla società Borgotaro Wind S.r.l., sarà costituito da 7 aerogeneratori della potenza massima di 6,1 MW ove i singoli aerogeneratori saranno limitati a 4,2, 4,3 o 4,5 MW al fine di rispettare il vincolo della potenza massima di impianto di 30 MW sul punto di connessione alla RTN, in aderenza e nel rispetto della STMG ottenuta da Terna e accettata dalla scrivente società (elaborato AE-1\_riservato). Da tali aerogeneratori, posti lungo una fascia di circa 2,3 km e compresi in un intervallo altimetrico di 135 m e collegati tra loro a gruppi in numero variabile da due a tre, l'energia elettrica prodotta verrà convogliata tramite un cavidotto interrato al punto di raccolta e consegna (sottostazione elettrica di trasformazione MT/AT) e successivamente alla futura stazione elettrica Terna, prevista sempre nel territorio comunale di Borgo Val di Taro.

Il sito di intervento si colloca in prossimità del confine con la Regione Toscana, coincidente in quella zona con il dislivello delle acque, e si sviluppa lungo il pendio Emiliano distanziandosi dalla linea di massima quota da un minimo di 90 m ad un massimo di 620 m.

Il progetto è il risultato di una serie di studi che hanno preso in considerazione numerosi fattori, quali l'anemologia, l'orografia e l'accessibilità del sito, con lo scopo di massimizzare il rendimento dei singoli aerogeneratori e dell'impianto nel suo complesso, attraverso l'utilizzo di software appositi, nel rispetto della normativa vigente.

Il tipo di aerogeneratore previsto per l'impianto in oggetto (aerogeneratore di progetto) è un aerogeneratore ad asse orizzontale con rotore tripala e una potenza massima di 6,1 MW, limitata a 4,2, 4,3 o 4,5 MW, le cui caratteristiche principali sono di seguito riportate:

- rotore tripala a passo variabile, di diametro massimo pari a 158 m, posto sopravvento alla torre di sostegno, costituito da 3 pale generalmente in resina epossidica rinforzata con fibra di vetro e da mozzo rigido in acciaio;
- navicella in carpenteria metallica con carenatura in vetroresina e lamiera, in cui sono collocati il generatore elettrico, il moltiplicatore di giri, il trasformatore BT/MT e le apparecchiature idrauliche ed elettriche di comando e controllo;
- torre di sostegno tubolare troncoconica in acciaio, avente altezza fino all'asse del rotore pari a massimi 132 m;
- altezza complessiva massima fuori terra dell'aerogeneratore pari a 200,0 m;
- diametro massimo alla base del sostegno tubolare: 4,95 m;
- area spazzata massima: 19.607 mq.

La velocità del vento di avviamento (o velocità di cut-in) è la minima velocità alla quale la macchina inizia a ruotare ed è pari a 3,0 m/sec; una volta che la velocità del vento supera il valore corrispondente alla velocità di avviamento la potenza cresce al crescere della velocità del vento. La potenza cresce fino alla velocità nominale e poi si mantiene costante fino alla velocità di fuori servizio o di cut-out (25 m/sec); per ragioni di sicurezza, a partire dalla velocità nominale, la turbina si regola automaticamente e l'aerogeneratore fornirà la potenza nominale servendosi dei suoi meccanismi di controllo.

Le opere civili previste per la realizzazione del campo eolico sono di seguito elencate:

- viabilità interna: è costituita da una serie di strade e di piste di accesso, in parte esistenti e in parte di nuova realizzazione, che consentono di raggiungere agevolmente tutte le postazioni in cui verranno collocati gli aerogeneratori. La progettazione stradale è stata svolta tenendo conto del fatto che la movimentazione dei pezzi componenti l'aerogeneratore e delle gru necessarie per il loro montaggio richiede una geometria stradale avente le seguenti caratteristiche minime:
  - larghezza netta della pista 4,50 m



- raggio minimo di curvatura 24,00 m
- allargamento della pista in corrispondenza delle curve fino a 13 m totali
- pendenza longitudinale massima 21%
- raggio di curvatura minimo altimetrico 200,00 m

I rilevati stradali saranno realizzati utilizzando, per quanto possibile, il materiale presente in sito mediante stabilizzazione con calce per i rilevati e realizzazione di terre armate per il sostegno degli stessi. Dopo l'esecuzione della necessaria compattazione, verrà steso uno strato di geotessile, quindi verrà realizzata una fondazione in misto granulare dello spessore di 30 cm e infine uno strato superficiale di massiciata tipo A1-b D<30mm UNI 10006 dello spessore di 10 cm.

- piazzole provvisorie: sono state dimensionate per consentire il montaggio a terra del braccio della gru principale a mezzo di altre due gru di supporto. Una volta completate le fasi di montaggio degli aerogeneratori si provvederà a ripristinare le parti delle piazzole provvisorie non più necessarie ai fini dell'accesso alle zone più prossime all'aerogeneratore, che andranno a costituire le piazzole definitive. In alcuni casi il ripristino comporterà la rimozione delle opere realizzate con la reintroduzione dello stato ante-operam, in altri casi il ripristino prevederà il ricoprimento delle parti delle piazzole provvisorie non più necessarie con relativo rinverdimento. Anche per la realizzazione delle parti in rilevato delle piazzole provvisorie si privilegerà l'impiego di terreni provenienti dagli scavi stabilizzata con la calce e sostenuta con la per la realizzazione di terre armate. La pavimentazione delle piazzole provvisorie sarà realizzata con le stesse modalità previste per le strade costituenti la viabilità.
- piazzole definitive: saranno ricavate dalle piazzole provvisorie ripristinandone la parte non più necessaria in fase di esercizio; anche la pavimentazione delle piazzole provvisorie sarà costituita da uno strato di misto stabilizzato dello spessore minimo di 40 cm.
- opere di sostegno: la particolare morfologia del terreno, i vincoli imposti alla geometria stradale della viabilità di collegamento, l'opportunità di ridurre le dimensioni del sedime di occupazione delle opere di progetto rendono necessaria la realizzazione di significative opere d'arte, per lo più costituite da terre armate che assolveranno sia alla funzione di sostegno del rilevato stradale e dei rilevati costituenti le piazzole sia a quelle di stabilizzazione del fronte scavo nei tratti di strada in trincea e nelle parti di piazzola ricavate in scavo. Date le caratteristiche del terreno movimentato, che interesserà principalmente la coltre superficiale di natura argilloso-limosa, il materiale necessario per la realizzazione delle terre armate sarà prelevato direttamente in sito. Ove le condizioni lo rendono necessario, per adeguare le strade comunali esistenti, verranno realizzati dei By-Pass e allargamenti a monte e a valle della sede viaria, intervenendo anche con soluzioni con paratie in micropali tirantate.
- opere di attraversamento e deviazione dei corsi d'acqua minori: la realizzazione della viabilità interna e delle piazzole presenterà alcune interferenze con la rete idrografica di 2° ordine (rii) e in casi più frequenti con quelle di 3° ordine (impluvi) della zona di intervento. Si prevede pertanto di realizzare un sistema di fossi di guardia e di tombini in modo da garantire una corretta regimazione delle acque intercettate dalle nuove opere ed il loro corretto convogliamento nella rete idrografica esistente. Nei punti di intersezione delle nuove opere, i corsi d'acqua intercettati risultano caratterizzati da bacini di estensione limitata, in quanto l'area d'intervento risulta situata in prossimità di una zona di crinale.
- opere di regimazione idraulica in adiacenza alle frane attive: trattasi di interventi di regimazione delle acque superficiali da attuarsi in prossimità dei principali corpi instabili, ubicati in adiacenza alla futura stazione elettrica Terna e all'area di cantiere. Saranno costituiti da fossi di guardia e tubi, per il convogliamento delle acque ai rii prossimi ai





dissesti; tali interventi non interferiranno con i corpi di frana che non saranno interessati da interventi diretti ed avranno la funzione di impedire il ruscellamento e infiltrazione delle acque superficiali all'interno dei corpi di frana stessi.

- fondazioni degli aerogeneratori: le torri degli aerogeneratori saranno fissate ad un elemento circolare di base in acciaio, a sua volta annegato all'interno di una fondazione tronco-piramidale in conglomerato cementizio armato, progettata per resistere al peso proprio della struttura e alle sollecitazioni cinematiche provocate dai sismi e dal vento. Date le caratteristiche del terreno risultanti dalle indagini geologiche e geotecniche condotte sulle singole postazioni degli aerogeneratori, la fondazione sarà del tipo su pali di grande diametro in calcestruzzo armato. La dimensione del plinto sarà circolare con diametro di 24 m con n. 16 pali trivellati da 100 cm e lunghezza variabile da 15 a 27 m. L'altezza del plinto sarà variabile da 1,50 m a 4,35 m.
- elettrodotti interrati: al di sotto della viabilità interna al parco correranno i cavi di media tensione che trasmetteranno l'energia elettrica prodotta dagli aerogeneratori alla sottostazione MT/AT e quindi alla rete elettrica nazionale. Lo scavo per l'alloggiamento del cavidotto, della profondità non inferiore a 1,30 m, sarà di larghezza variabile a seconda del numero di terne contenute; queste verranno collocate su uno strato di sabbia dello spessore di 10 cm, ricoperte con un ulteriore strato di sabbia di 30 cm, all'interno del quale troveranno posto anche il cavo in rame per la messa a terra, il cavo di comunicazione in fibra ottica per il sistema di controllo del parco (all'interno di un tubo in PVC del diametro di 50 mm) e uno o più elementi di resina a protezione dei cavi. La restante porzione dello scavo sarà riempita con materiale arido, all'interno del quale sarà collocato il nastro segnalatore. Il percorso del cavidotto verso la sottostazione elettrica di trasformazione MT/AT seguirà, nel tratto che scende verso l'abitato di Borgo Val di Taro, il tracciato di vecchie strade interpoderali e comunali con un minimo impatto sulla viabilità ordinaria e senza interferenze con le zone boschive.
- sottostazione elettrica di trasformazione MT/AT 30/132 kV: il collegamento alla RTN verrà realizzato mediante punto di raccolta ed elevazione 30/132 kV collegato in antenna a 132 kV alla futura stazione di smistamento a 132 kV della RTN nel Comune di Borgo Val di Taro (PR) da inserire in entra-esce sulle linee a 132 kV “Pontremoli RT – Borgotaro RT” e “Borgotaro RT – Berceto”. Progettualmente è previsto anche un collegamento provvisorio alla RTN: dal punto di vista elettrico la connessione avverrà tramite un cavo interrato a 132 kV in partenza dalla futura sottostazione MT/AT che, arrivato “al punto di consegna”, salirà in aereo tramite porta terminale aereo – cavo. Da qui la connessione, passando per il sezionatore, salirà con una calata dei conduttori aerei della linea a 132 kV “Pontremoli RT – Borgotaro RT” che in quel tratto ha le terne in parallelo. Tale sistema di inserimento su una linea esistente viene definito “T rigido”. La nuova sottostazione elettrica di trasformazione verrà realizzata in un'area attualmente agricola posta all'esterno dell'abitato di Borgo Val di Taro e lungo il tratto della strada comunale ex S.S. 523; il profilo altimetrico del terreno porta a realizzare la superficie della nuova sottostazione elettrica di trasformazione con paratie di contenimento in pali di grande diametro e tiranti sub orizzontali. La disposizione sarà comunque in andamento con la superficie esistente e mitigata con l'inserimento di essenze arboree e sistemazioni a verde. L'accesso alla futura sottostazione elettrica di trasformazione, condiviso con quella della futura stazione elettrica di smistamento RTN, avverrà direttamente dalla strada comunale utilizzando un percorso interno esistente che sarà opportunamente adeguato. Il layout elettromeccanico della sottostazione utente è predisposto al fine di prevedere la possibilità di realizzare in futuro un condominio in conformità a quanto richiesto da Terna Spa in STMG.
- futura stazione di smistamento RTN a 132 kV: è prevista nel Comune di Borgo Val di Taro (PR) da inserire in entra-esce sulle linee a 132 kV “Pontremoli RT – Borgotaro RT” e





“Borgotaro RT – Berceto”; questa futura stazione di smistamento provvederà così ad alimentare l'esistente cabina RFI di Borgotaro. La futura stazione Terna verrà realizzata nella stessa zona della sottostazione elettrica di trasformazione e ad essa adiacente, ma con dimensioni maggiori connesse con il posizionamento delle apparecchiature elettromeccaniche e il collegamento alla rete elettrica esistente. A monte verrà realizzata una paratia in pali e tiranti, in analogia a quelli previsti per la sottostazione elettrica di trasformazione, e a valle il terreno verrà raccordato con terre armate e scarpate stabili in modo da adeguarsi alla morfologia esistente. Verranno previste anche in questo caso mitigazioni ambientali con l'inserimento di essenze arboree e sistemazioni a verde.

Per maggiori dettagli si rimanda agli elaborati progettuali del progetto definitivo.



## 8 INQUADRAMENTO ACUSTICO

La classificazione acustica comunale (o Zonizzazione Acustica Comunale, ZAC), è disciplinata dalla L.R. 9/5/01 n. 15; in carenza della medesima, l'individuazione delle classi acustiche si desume dai criteri stabiliti dalla D.G.R. 9 ottobre 2001, n.2053.

### 8.1 PIANO DI CLASSIFICAZIONE ACUSTICA DEL COMUNE DI BORGO VAL DI TARO

Il Piano di Classificazione Acustica (PCA) del Comune di Borgo Val di Taro è stato adottato con Deliberazione di Consiglio Comunale n. 31 del 09/05/2005 ed approvato con Deliberazione di Consiglio Comunale n. 16 del 06/02/2009.

La Zonizzazione Acustica del Comune di Borgo Val di Taro classifica le aree in cui sono ricompresi i ricettori in classe III “aree di tipo misto” (ricettori R1, R2, R3 ed R12) o in classe II “aree destinate ad uso prevalentemente residenziale”; i **limiti di emissione**, definiti dalla tabella B del DPCM 14/11/97 “*Determinazione dei valori limite delle sorgenti sonore*”, sono per la **classe III di 55 dB per il periodo diurno** e di **45 dB per il periodo notturno**, mentre per la **classe II di 50 dB per il periodo diurno** e di **40 dB per il periodo notturno**; i **limiti di immissione assoluti**, definiti dalla tabella C del DPCM 14/11/97 “*Determinazione dei valori limite delle sorgenti sonore*”, sono per la **classe III di 60 dB per il periodo diurno** e di **50 dB per il periodo notturno**, mentre per la **classe II di 55 dB per il periodo diurno** e di **45 dB per il periodo notturno**.

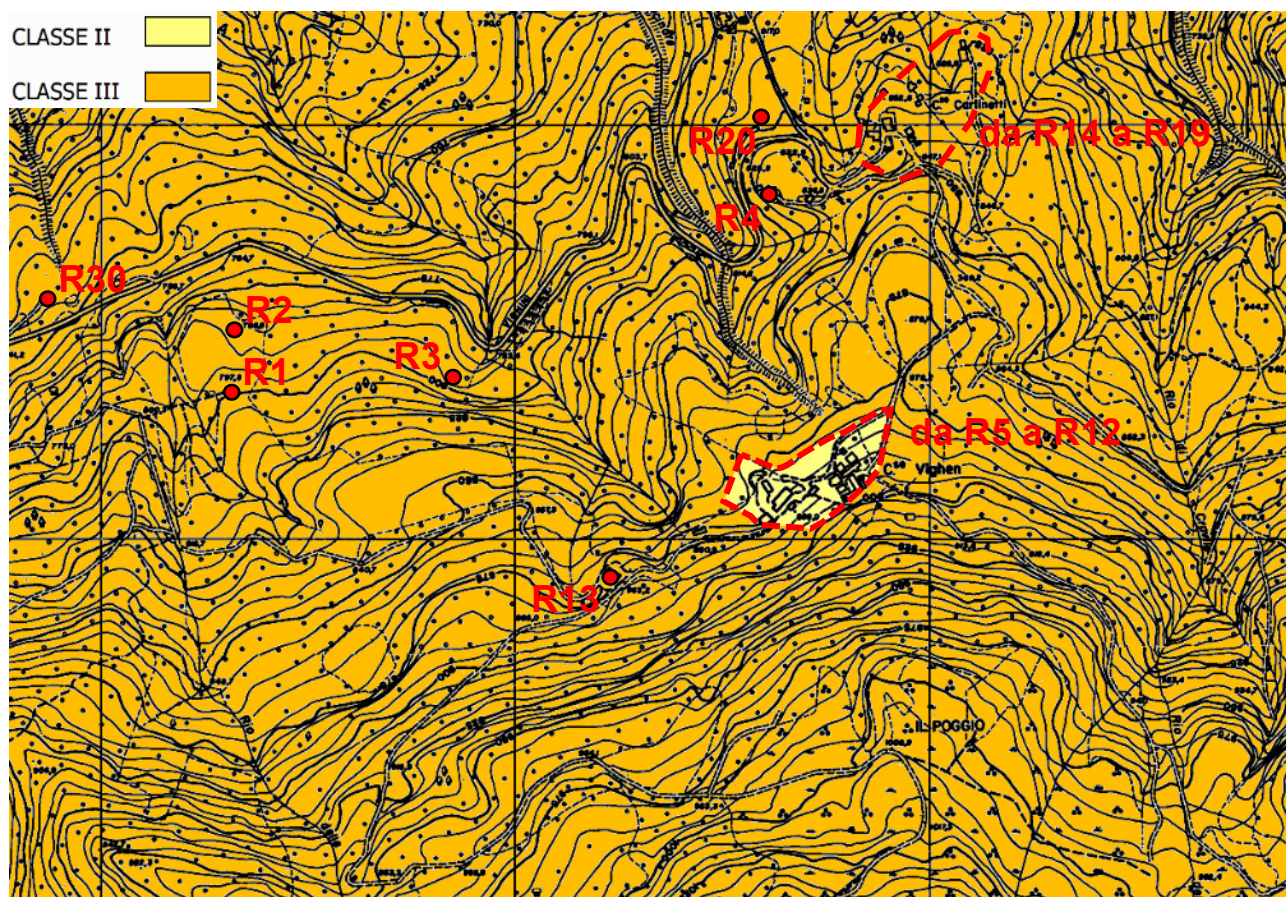


Figura 8.1 – Stralcio della ZAC del Comune di Borgo Val di Taro in prossimità dell'abitato di Case Vighini



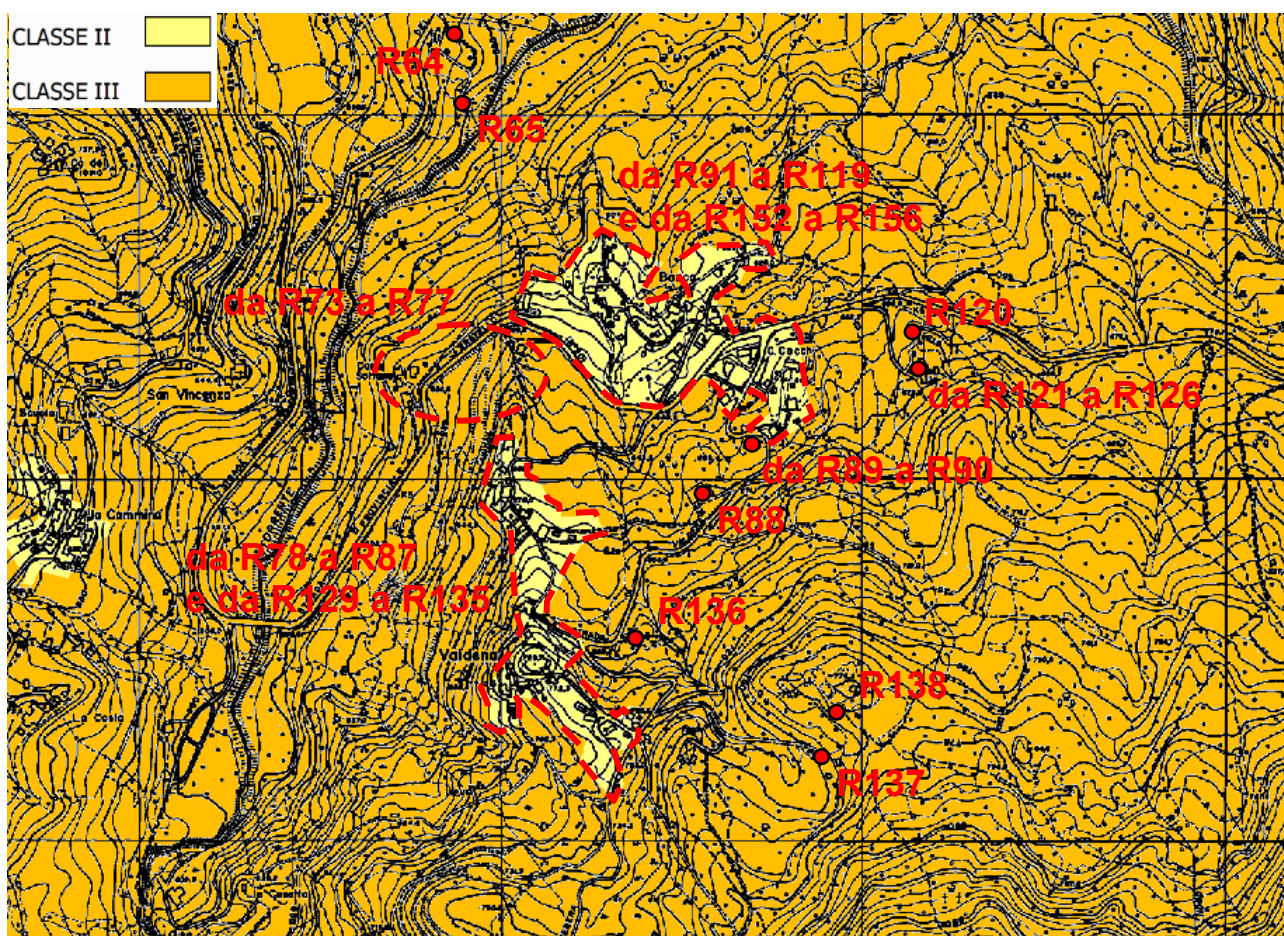


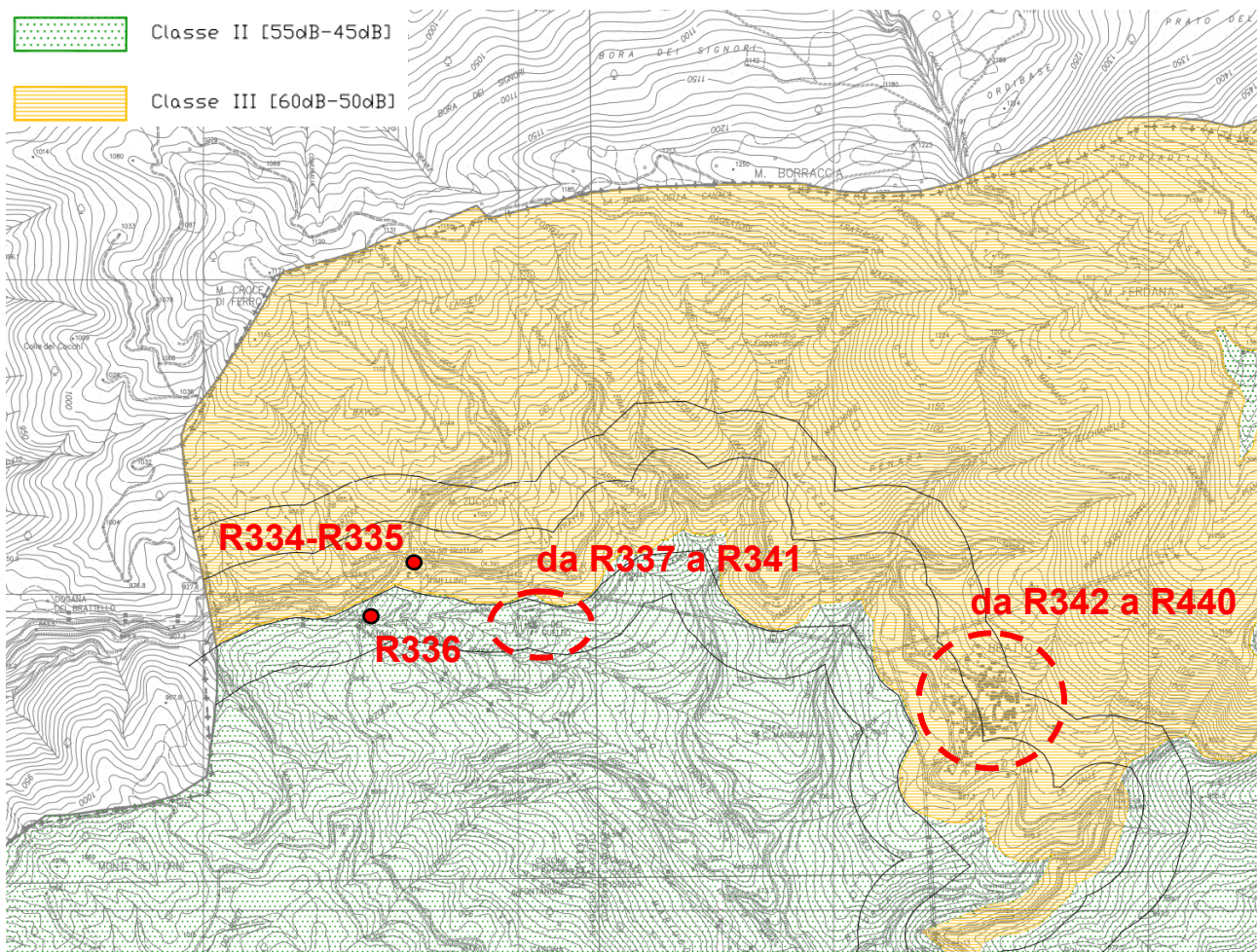
Figura 8.2 – Stralcio della ZAC del Comune di Borgo Val di Taro in prossimità dell'abitato di Valderna

## 8.2 PIANO DI CLASSIFICAZIONE ACUSTICA DEL COMUNE DI PONTREMOLI

Il Piano di Classificazione Acustica (PCA) del Comune di Pontremoli è stato approvato con Deliberazione di Consiglio Comunale n. 12 del 26/02/2005.

La Zonizzazione Acustica del Comune di Pontremoli classifica le aree in cui sono ricompresi i ricettori in classe III “aree di tipo misto” (ricettore R13); i **limiti di emissione**, definiti dalla tabella B del DPCM 14/11/97 “Determinazione dei valori limite delle sorgenti sonore”, sono di **55 dB per il periodo diurno** e di **45 dB per il periodo notturno**; i **limiti di immissione assoluti**, definiti dalla tabella C del DPCM 14/11/97 “Determinazione dei valori limite delle sorgenti sonore”, sono di **60 dB per il periodo diurno** e di **50 dB per il periodo notturno**.





**Figura 8.3 - Stralcio della ZAC del Comune di Pontremoli**

## **8.3 SORGENTI**

### **8.3.1 DESCRIZIONE AEROGENERATORE DI PROGETTO**

Il progetto del parco eolico “Monte Croce di Ferro” in esame prevede l’installazione di n. 7 aerogeneratori aventi una potenza nominale unitaria massima di 6,1 MW ma limitata al fine di rispettare il vincolo della potenza massima di impianto di 30 MW sul punto di connessione alla RTN, in aderenza e nel rispetto della STMG ottenuta da Terna e accettata dalla scrivente società (elaborato AE-1\_riservato).

L’aerogeneratore di progetto non corrisponde ad un modello specifico in commercio, ma è un aerogeneratore le cui caratteristiche massime sono tali da ricomprendere le caratteristiche dimensionali e prestazionali dei modelli commerciali ritenuti idonei per il sito.

In merito alla potenza dell’aerogeneratore di progetto vanno rese le seguenti precisazioni.

La potenza nominale unitaria massima dell’aerogeneratore di progetto è di 6,1 MW perché tra gli aerogeneratori attualmente in commercio e idonei per essere installati sul sito, quello con potenza maggiore ha una potenza pari a 6,1 MW.

Qualunque sia il modello di aerogeneratore che verrà installato, esso avrà una potenza nominale pari a quella dell’aerogeneratore di progetto ossia 4,2/4,3/4,5 MW che verrà imposta dal costruttore durante la fase di produzione e verificabile su di una targhetta installata alla base della torre.



Tale potenza di targa pari a 4,2/4,3/4,5 MW sarà quindi definita a livello contrattuale tra la società e il fornitore, successivamente all'ottenimento delle autorizzazioni alla realizzazione del progetto e in conformità a queste.

Corre l'obbligo precisare che a seguito della fornitura degli aerogeneratori, la società titolare del parco eolico non disporrà di alcuno strumento per modificare in maniera autonoma l'impostazione relativa alla loro potenza di targa. Va da sé che, in assenza dei necessari nuovi titoli autorizzativi, la società non potrà richiedere al costruttore l'intervento per l'aumento della potenza di targa.

Il tipo di aerogeneratore previsto per l'impianto in oggetto (**aerogeneratore di progetto**) è un aerogeneratore ad asse orizzontale con rotore tripala e una potenza massima di 6,1 MW limitata a 4,2/4,3/4,5 MW, le cui caratteristiche principali sono di seguito riportate:

- rotore tripala a passo variabile, di diametro massimo pari a 158 m, posto sopravvento alla torre di sostegno, costituito da 3 pale generalmente in resina epossidica rinforzata con fibra di vetro e da mozzo rigido in acciaio;
- navicella in carpenteria metallica con carenatura in vetroresina e lamiera, in cui sono collocati il generatore elettrico, il moltiplicatore di giri, il trasformatore BT/MT e le apparecchiature idrauliche ed elettriche di comando e controllo;
- torre di sostegno tubolare troncoconica in acciaio, avente altezza fino all'asse del rotore pari a massimi 132 m;
- altezza complessiva massima fuori terra dell'aerogeneratore pari a 200,0 m;
- diametro massimo alla base del sostegno tubolare: 4,95 m;
- area spazzata massima: 19.607 mq.

Di seguito si riportano le configurazioni di layout prese in considerazione per il progetto:

- 1) 5 GE158 da 6.1MW operati a 4.2MW e 2 GE158 da 6.1MW operati a 4.5MW @121m HH (potenza totale installata di impianto = 30,00 MW)
- 2) 7 V136 da 4.2/4.3MW (e rispettivamente 6 V136 da 4.2MW operati in power boost a 4.3MW + 1 V136 operato a 4.2MW) @112m HH (potenza totale installata di impianto = 30,00 MW)
- 3) 7 V136 da 4.2/4.3MW (e rispettivamente 6 V136 da 4.2MW operati in power boost a 4.3MW + 1 V136 operato a 4.2MW) @132m HH (potenza totale installata di impianto = 30,00 MW)

Tutti gli altri aerogeneratori disponibili per il mercato italiano con diametro rotore superiore a 136 m non risultano essere compatibili per il progetto in particolare per quanto riguarda vincoli dimensionali/tecnici legati all'installazione ed al trasporto dei componenti degli aerogeneratori stessi.

La scelta di un singolo modello commerciale rispetto agli altri è da considerarsi antieconomica ed inopportuna dal punto di vista progettuale e tecnologico. Infatti, vincolare il progetto ad uno specifico modello commerciale comporterebbe le seguenti conseguenze:

- al momento del rilascio dell'autorizzazione alla costruzione del progetto, il modello commerciale scelto potrebbe essere superato dal punto di vista delle migliori tecnologie disponibili da altri modelli più recenti. Si potrebbero, per esempio, avere modelli analoghi in grado di garantire la stessa performance energetica con minori impatti ambientali e questo beneficio non sarebbe quindi conseguibile;
- il venditore dello specifico modello commerciale potrebbe avvalersi di una sorta di situazione di monopolio e quindi fissare il prezzo fuori dal mercato, obbligando il proponente a realizzare un progetto non sostenibile economicamente.



### 8.3.2 DATI CARATTERISTICI

Posizione rotore: sopravento

Regolazione di potenza: a passo variabile

Diametro rotore: max 158 m

Area spazzata: max 19.607 mq

Direzione di rotazione: senso orario

Temperatura di esercizio: -30°C / +40°C

Velocità del vento all'avviamento: min 3 m/s

Arresto per eccesso di velocità del vento: 25 m/s

Freni aerodinamici: messa in bandiera totale

Numero di pale: 3

Modalità di trasporto di tutti i componenti da porto navale al sito: mezzi di trasporto eccezionale standard aventi uno snodo ed il componente fissato al rimorchio in senso orizzontale.

Modalità di trasporto di tutti i componenti (pale escluse) da area di trasbordo al sito di installazione: mezzi di trasporto eccezionale speciali aventi uno snodo ed il componente fissato al rimorchio sopra il pianale.

Modalità di trasporto della singola pala da area di trasbordo al sito di installazione: mezzo speciale “blade-lifter” per il sollevamento della pala fino ad un’inclinazione di 60° rispetto al suolo.

Ai fini degli approfondimenti progettuali e dei relativi studi specialistici, si sono individuati alcuni specifici modelli commerciali di aerogeneratore ad oggi esistenti sul mercato, idonei ad essere conformi all'aerogeneratore di progetto:

- |                     |               |   |
|---------------------|---------------|---|
| 1. General Electric | GE158 Cypress | – HH 121m – 6.1 MW operati a 4.2/4.5 MW |
| 2. Vestas           | V136 4.2      | – HH 112/132m – 4.2/4.3 MW              |

Per il primo modello si considera l'applicazione della modalità operativa della curva di potenza a 4.2/4.5 MW.

Per il secondo modello, solo nella configurazione da 4.3 MW, si considera la modalità operativa in “power boost” che consente di spingere la potenza nominale da 4,2 MW fino a 4,3 MW.

Per quanto riguarda l'aerogeneratore GE158, General Electric può fornire, in quanto presente a catalogo, la turbina eolica da 6.1 MW con una limitazione di potenza a 4.5/4.2 MW. Per quanto riguarda la limitazione a 4.5 MW, le specifiche sono allegate alla presente relazione; per quanto riguarda la limitazione a 4.2 MW, con la dichiarazione allegata alla presente relazione, General Electric dichiara che è possibile valutare in quanto presente a catalogo una limitazione di potenza a 4.2 MW per la turbina eolica da 6.1 MW, qualora sussistano le condizioni di carico strutturale adeguate, a seguito dell'analisi completa delle condizioni meteorologiche del sito di installazione che potrà essere svolta solo in una fase successiva e propedeutica alla negoziazione del contratto di appalto. Pertanto, ai fini del calcolo di producibilità, la curva di potenza a 4.2MW è stata desunta da quella a 4.5 MW tagliandola a 4.2 MW, mentre ai fini delle analisi sul rumore, per la limitazione a 4.2 MW è stata utilizzata la curva del rumore a 4.5 MW in quanto conservativa.

Per quanto riguarda l'aerogeneratore V136, Vestas può fornire la torre con HH pari a 112 m in quanto prodotto standard e la torre con HH pari a 132 m in quanto prodotto site specific, come dichiarato dallo stesso fornitore.

L'aerogeneratore del fornitore Siemens Gamesa SG 132 nel frattempo non è più commercializzato per il mercato italiano e, pertanto, non può più essere preso in considerazione per il progetto.

### 8.3.3 RIDUZIONE POTENZA SONORA

Il modello Vestas V136 operato a 4.2 MW può essere fornito in due configurazioni e precisamente in modalità PO1 (standard), per il quale le pale sono dotate di alette sul bordo di uscita (le così





dette “Serrated trailing edges”) ed il massimo livello sonoro emesso dall’aerogeneratore è di 103.9 dBA oppure in modalità PO1-0S (option), per il quale le pale non sono dotate di alette sul bordo di uscita ed il massimo livello sonoro emesso dall’aerogeneratore è di 106.9 dBA.

Analogamente il modello Vestas V136 operato a 4.3 MW può essere fornito in due configurazioni e precisamente in modalità PO2 (standard), per il quale le pale sono dotate di alette sul bordo di uscita ed il massimo livello sonoro emesso dall’aerogeneratore è di 103.9 dBA oppure in modalità PO2-0S (option), per il quale le pale non sono dotate di alette sul bordo di uscita ed il massimo livello sonoro emesso dall’aerogeneratore è di 106.9 dBA.

Ciò premesso il modello Vestas V136 operato a 4.2/4.3 MW può essere fornito con la possibilità di operare in modalità con riduzione del massimo livello di rumore emesso (il così detto Sound Optimized (SO) mode) e precisamente secondo i valori riportati nella seguente tabella:

Sound Optimized (SO) modes		
Mode no.	Maximum Sound Level	Serrated trailing edges
SO1	102.0 dBA	Yes
SO2	99.5 dBA	Yes
SO11	99.2 dBA	Yes
SO12	99.9 dBA	Yes
SO13	97.0 dBA	Yes

Anche per quanto riguarda, invece, il modello GE158, per ottimizzare le emissioni sonore, le pale del rotore sono dotate di Low-Noise-Trailing-Edges (LNTE) sul lato di pressione del bordo posteriore della pala. Gli LNTE sono sottili strisce di plastica frastagliate che vengono montate direttamente in fabbrica. Per il modello GE158 operato a 4.5 MW in configurazione di “Normal Operation Apparent Sound Power Levels” il massimo livello sonoro emesso dall’aerogeneratore è di 104.0 dBA (contro un valore di 107.0 dBA per il modello GE158 operato a 6.1 MW in configurazione di “Normal Operation Apparent Sound Power Levels”). Per il modello GE158 operato a 4.2 MW, così come dichiarato dello stesso fornitore, GE sarà in grado di fornire solo successivamente, per la configurazione di “Normal Operation Apparent Sound Power Levels”, il massimo livello sonoro emesso dall’aerogeneratore che, in via cautelativa, si può assumere che non sarà superiore a 104.0 dBA.

GE, per ottimizzare le emissioni sonore del parco eolico, dispone di un software di gestione del rumore del parco eolico (componente opzionale). Negli impianti dove il rumore assume un aspetto da attenzionare è possibile adattare il funzionamento degli aerogeneratori al fine di soddisfare il rispetto dei limiti. Questo sistema dedicato di gestione del rumore di impianto fornisce maggiore flessibilità e maggiore resa energetica rispetto alle limitazioni imposte sull’aerogeneratore. Questo schema avanzato consente di regolare continuamente il funzionamento dell'impianto in base alle variabili ambientali che influenzano l'emissione acustica dell'impianto, essenzialmente velocità del vento e sua direzione.

Il pacchetto Wind Farm Noise Management include i seguenti servizi e hardware:

- modellazione della propagazione del rumore a livello di parco e ottimizzazione del funzionamento del parco eolico,
- tabella con set-point ottimali delle turbine nel parco in funzione della velocità del vento e dei settori di vento,
- installazione e messa in servizio del pacchetto software Farm Noise Management.

Per quanto riguarda, infine, la richiesta di chiarire con quale meccanismo è possibile adottare tale riduzione del massimo livello sonoro emesso dall’aerogeneratore, fondamentalmente i metodi (così come comunicato dai fornitori stessi) sono due, ovvero o agire riducendo il numero di giri del rotore oppure riducendo la coppia meccanica tra moltiplicatore di giri e generatore.



#### **8.3.4 SINTESI DELLE CARATTERISTICHE TECNICHE CONSIDERATE PER LE VALUTAZIONI ACUSTICHE**

Alla luce di quanto riportato nei precedenti paragrafi, di seguito si riportano le caratteristiche tecniche considerate per le diverse valutazioni acustiche, scelte a favore di sicurezza in modo tale da massimizzare gli impatti ai ricettori:

- altezza massima fuori terra dell'aerogeneratore = 200 m (tale assunzione massimizza il numero di ricettori in visibilità ottica con almeno un aerogeneratore)
- diametro del rotore  $D = 158$  m (tale assunzione massimizza il numero di ricettori potenzialmente esposti, art. 2 lettera e. del D.M. 01/06/2022)
- altezza del mozzo  $HH = 112$  m (tale assunzione minimizza la distanza sorgente-ricettore, art. 2 lettera c. del D.M. 01/06/2022)
- potenza sonora considerata (e relativi spettri di frequenza in bande di ottava e 1/3 di ottava): 106.9 dBA, corrispondente alla modalità PO1-0S per il modello Vestas V136 operato a 4.2 MW (tale ipotesi massimizza la potenza sonora emessa ed è compatibile con l'altezza mozzo minima considerata).





## 8.4 RICETTORI

L'individuazione dei ricettori è stata eseguita secondo la definizione di “*Aerogeneratore potenzialmente impattante*” di cui all'art. 2, comma 1, lettera e. del D.M. 01/06/2022, la quale stabilisce il criterio per individuare la massima distanza ricettore-aerogeneratore ( $d_{\max,r-a}$ ) entro la quale valutare gli impatti. Il criterio definito è il seguente:

- se  $\min(3r_1; 20D) < 1.5 \text{ km} \rightarrow d_{\max,r-a} = 1.5 \text{ km}$
- se  $\min(3r_1; 20D) \geq 1.5 \text{ km} \rightarrow d_{\max,r-a} = \min(3r_1; 20D)$

dove  $r_1$  = distanza tra il ricettore e l'aerogeneratore più vicino

$D$  = diametro del rotore

Il criterio equivale a considerare come ricettori da prendere in esame tutti quelli compresi entro una distanza pari a  $20D$ , che, nel caso in questione, in riferimento a quanto esposto nel paragrafo 8.3.4, equivale a 3160 m.

Si osserva inoltre che tutti gli aerogeneratori, con esclusione del solo BT1, non hanno alcun ricettore a distanza superiore a  $3r_1$ , come evidenziato in Tabella 8.1, il che mostra come le distanze ricettore-aerogeneratore siano generalmente elevate.

Aerogen.	Ricettore più vicino	$r_1$ [m]	$D$ [m]	$3r_1$ [km]	$20D$ [km]	$d_{\max,r-a}$ [km]
BT1	13	589	158	1.767	3.160	<b>1.749</b>
BT2	13	1081	158	3.243	3.160	<b>3.160</b>
BT3	334	1114	158	3.342	3.160	<b>3.160</b>
BT4	334	1183	158	3.549	3.160	<b>3.160</b>
BT5	334	1425	158	4.275	3.160	<b>3.160</b>
BT6	332	1466	158	4.398	3.160	<b>3.160</b>
BT7	332	1490	158	4.470	3.160	<b>3.160</b>

**Tabella 8.1 – Individuazione della massima distanza ricettore-aerogeneratore entro cui valutare gli impatti**

Come richiesto da ARPAE, a corredo della presente relazione, sono stati predisposti due files, uno shape (.shp) ed uno Excel (.xlsx), con l'individuazione di tutti i ricettori entro un raggio di 3160 m da ogni aerogeneratore e l'indicazione dei seguenti parametri:

- quota base sul livello del mare
- altezza al colmo del tetto
- distanza del colmo del tetto dal centro del mozzo dell'aerogeneratore più vicino
- indicazione degli aerogeneratori in visibilità ottica

Ciascuno dei ricettori individuati è stato identificato con un codice numerico univoco uguale sia nello shapefile che in quello Excel. Per i dettagli riportati si rimanda ai due files allegati.

Dall'elenco dei ricettori sono stati selezionati alcuni singoli ricettori o gruppi di ricettori ritenuti più rilevanti per la valutazione dell'impatto acustico generato dall'impianto in oggetto. Nel successivo paragrafo 8.4.1 se ne riporta una sintetica descrizione.

#### **8.4.1 DESCRIZIONE DEI RICETTORI OGGETTO DI VERIFICA**

##### **GRUPPO DI RICETTORI GR1 – Località Case Vighini, (Comune di Borgo Val di Taro, PR)**

Il gruppo di ricettori GR1 è costituito dal gruppo di abitazioni denominato Case Vighini, posto alla distanza minima di circa 583 m dall'aerogeneratore più vicino (BT1). Tale gruppo è costituito da n. 9 abitazioni, oltre accessori, identificati dai codici da 5 a 13. Tutti i ricettori sono compresi in zona classe II, fatta eccezione per il ricettore 13 che si trova in zona classe III.

Nelle verifiche di rispetto della normativa sono stati considerati sia il ricettore **13**, in quanto il più vicino al parco eolico ma in zona classe III, sia il ricettore **10** in quanto il più vicino tra i ricettori in zona classe II (distanza pari 622 m da BT1).

Tutti i ricettori sono in visibilità ottica con tutti gli aerogeneratori, fatta eccezione per il 13 che risulta in visibilità unicamente col BT1, BT2 e BT3.



**Figura 8.4 – Gruppo di ricettori GR1, Case Vighini**

Nell'intorno di Case Vighini sono presenti diverse abitazioni e nuclei sparsi, i quali non sono stati presi in considerazione nelle verifiche, in quanto posti grosso modo sulla stessa direttrice dell'abitato principale ma a distanze superiori dalle sorgenti.

##### **GRUPPO DI RICETTORI GR2 – Località Valdena, (Comune di Borgo Val di Taro, PR)**

Il gruppo di ricettori GR2 costituisce il nucleo abitato di maggior estensione in territorio emiliano, all'interno dell'area di influenza del parco eolico; esso si trova lungo la S.P. 20 del Brattello tra il km 5 ed il km 6 e comprende i ricettori contrassegnati dagli identificativi da 73 a 138, per un totale di n. 56 ricettori.

Nessuno dei ricettori, eccetto il 138, si trova in visibilità ottica con tutti e sette gli aerogeneratori, dal momento che gli aerogeneratore BT6 e BT7 non sono visibili da nessuno di essi; la maggior parte dei ricettori si trova in visibilità con gli aerogeneratori da BT1 a BT5.





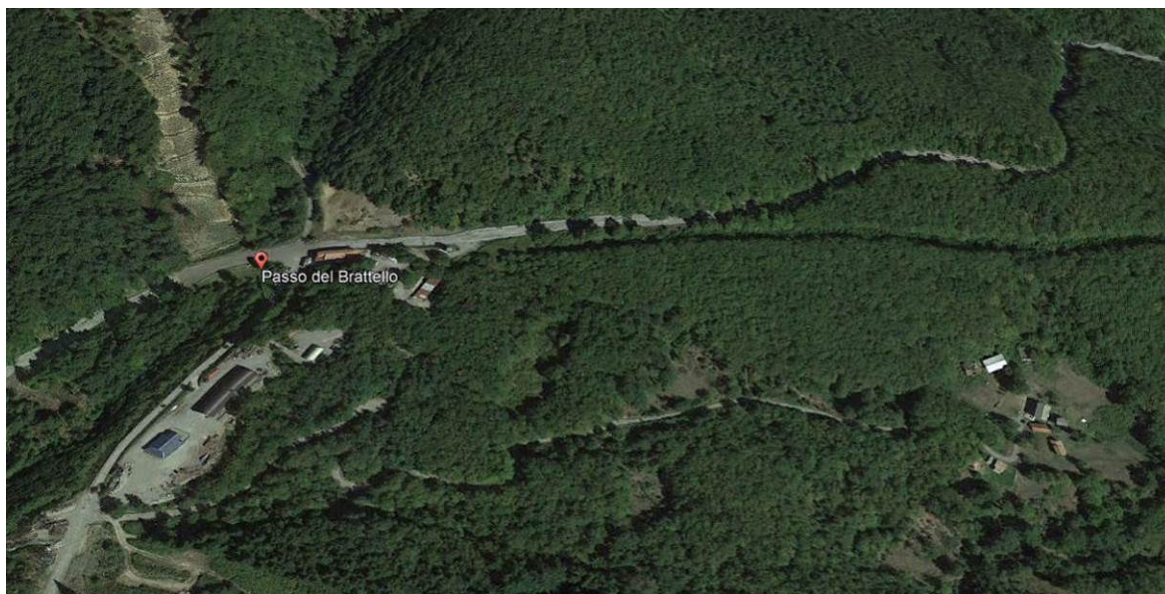
Come per il gruppo GR1, anche in questo caso vi sono alcuni ricettori in zona classe II ed altri in zona classe III; nelle verifiche sono considerati il ricettore **128** (distanza 2233 m, zona classe III) ed il ricettore **101** (distanza 2683 m, zona classe II). Nelle verifiche si è assunto, a favore di sicurezza, che essi siano in visibilità ottica con tutti e sette gli aerogeneratori.



*Figura 8.5 – Gruppo di ricettori GR2, Valderna*

*GRUPPO DI RICETTORI GR3 – Passo del Brattello (Comune di Pontremoli, MS), S.P. n. 39 del Brattello*

Il gruppo di ricettori GR3 è costituito dall'edificio a due piani posto in corrispondenza del Passo del Brattello, sulla ex S.P. n. 39 del Brattello, contenente due unità immobiliari abitative (ricettori 334 e 335), dalla piccola chiesa posta a sud del valico (ricettore 336) e dal gruppo di case, a cui si accede dalla strada sterrata a sud est della chiesa (ricettori da 337 a 341).



*Figura 8.6 – Gruppo di ricettori GR3, Passo del Brattello*

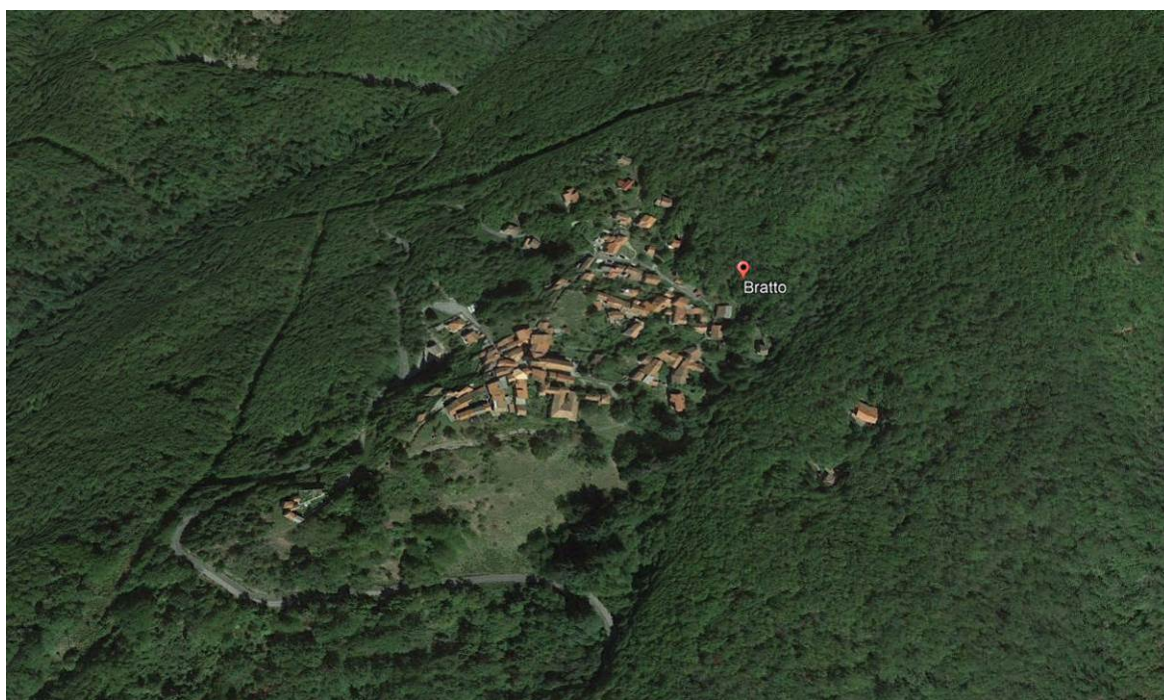




I ricettori 334 e 335 si trovano in zona classe III, mentre i ricettori da 336 a 341 si trovano in zona classe II. Nelle verifiche sono considerati i ricettore **334** e **335** (distanza 1117 m, zona classe III) ed il ricettore **336** (distanza 1237 m, zona classe II). Nonostante nessuno dei ricettori si trovi in visibilità ottica con tutti e sette gli aerogeneratori, nelle verifiche si è assunto, a favore di sicurezza, che essi siano in visibilità ottica con tutti e sette gli aerogeneratori.

#### GRUPPO DI RICETTORI GR4 – Bratto (Comune di Pontremoli, MS), S.P. n. 39 del Brattello

Il gruppo di ricettori GR4 costituisce il nucleo abitato di maggior estensione in territorio toscano, all'interno dell'area di influenza del parco eolico; esso si trova lungo la S.P. 39 del Brattello circa in corrispondenza del km 15 e comprende i ricettori contrassegnati dagli identificativi da 342 a 440, per un totale di n. 99 ricettori.



**Figura 8.7 - Gruppo di ricettori GR4, Bratto**

Tutti i ricettori compresi nel gruppo GR4 si trovano in zona classe III, mentre nessuno di essi si trova in visibilità ottica con tutti e sette gli aerogeneratori, dal momento che l'aerogeneratore BT7 non è visibile da nessuno di essi; la maggior parte dei ricettori si trova in visibilità con gli aerogeneratori da BT1 a BT6; nelle verifiche viene preso in considerazione unicamente il ricettore **343** come rappresentante del gruppo, in quanto posto alla distanza minore rispetto al parco eolico, assumendo, a favore di sicurezza, che esso sia in visibilità ottica con tutti e sette gli aerogeneratori.

**Si precisa inoltre che si è ritenuto non significativa l'analisi di altri ricettori, tra i 491 totali, in quanto, rispetto a quelli sopra descritti, non rappresentativi di condizioni più restrittive o penalizzanti, causa distanze maggiori sulla stessa direttrice o visibilità ottica assente con gran parte degli aerogeneratori.**

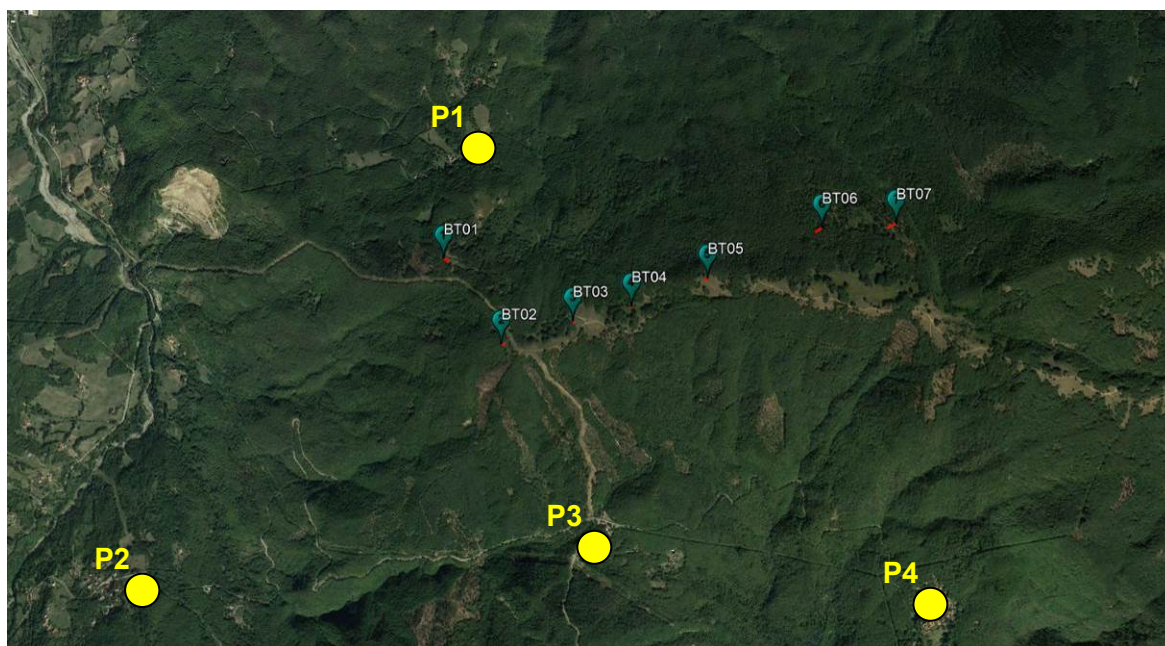




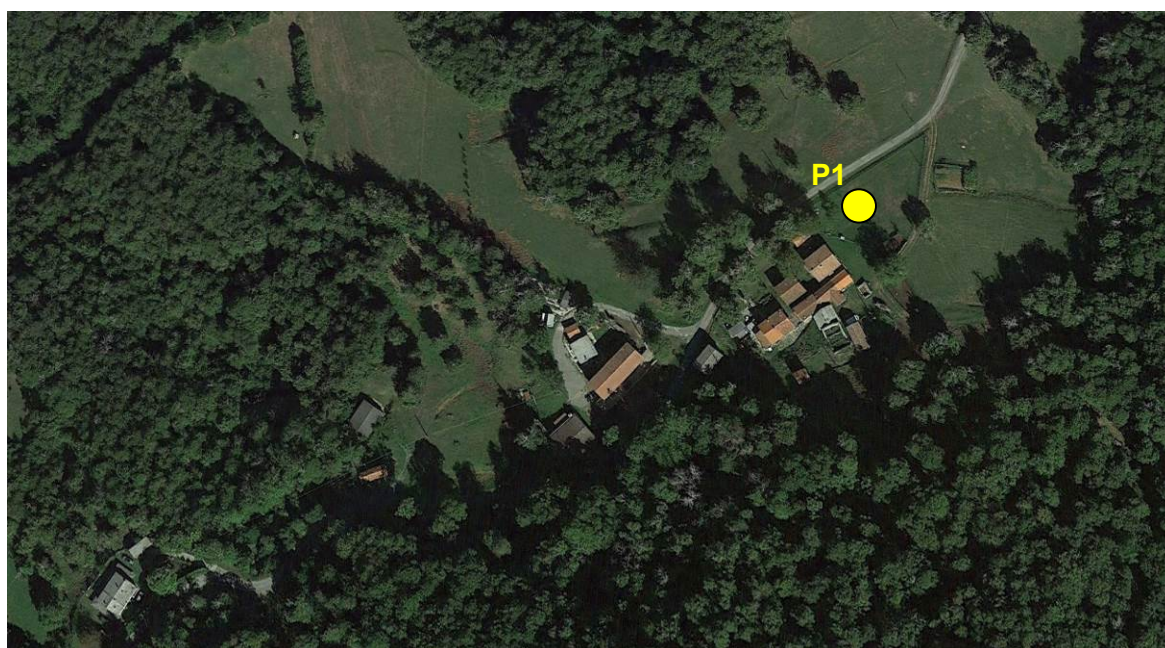
## 9 MISURA DEI LIVELLI SONORI EX-ANTE

### 9.1 DESCRIZIONE DEI PUNTI DI MISURA

La definizione dello stato acustico attuale ai ricettori (rumore ambientale residuo) è stata ottenuta mediante l'esecuzione di una campagna di misure per ciascuno dei quattro gruppi di ricettori secondo le modalità precedentemente descritte al paragrafo 6, in conformità con quanto prescritto dal D.M. 01/06/2022; in Figura 9.1 è raffigurata l'ubicazione dei quattro punti di misura rispetto alle sorgenti (aerogeneratori), mentre in Figura 9.2, Figura 9.3, Figura 9.4 e Figura 9.5 ne sono riportate le ortofoto di dettaglio.

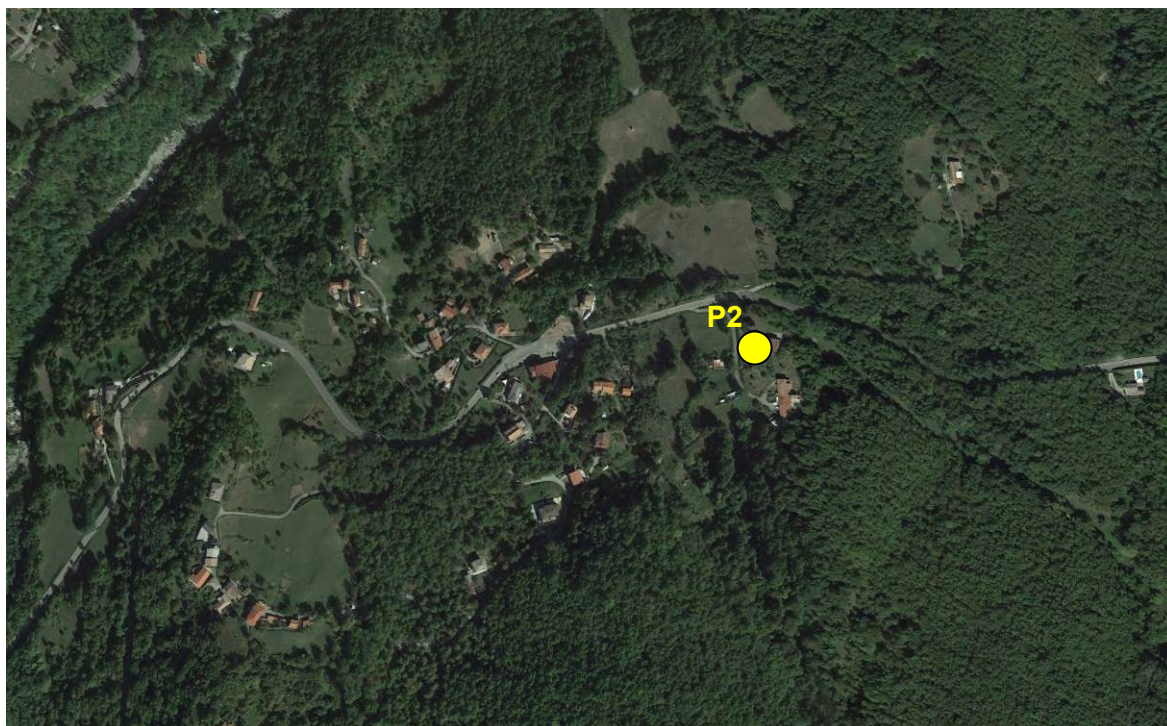


*Figura 9.1 – Ubicazione dei punti di misura*

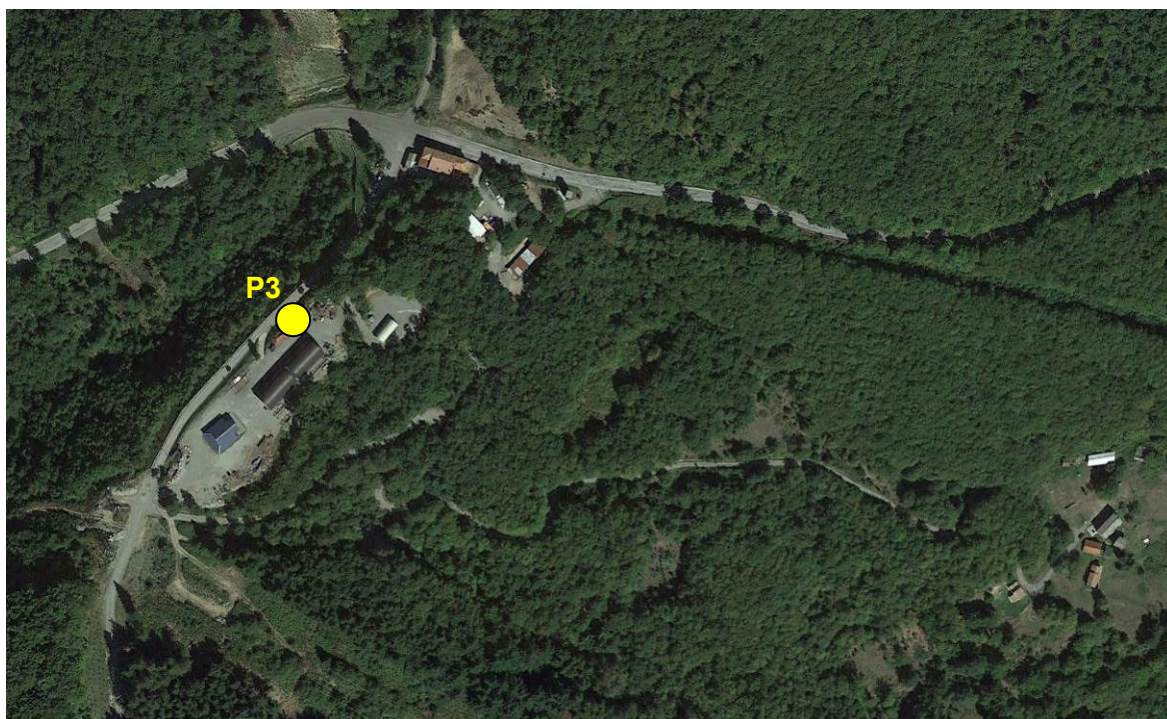


*Figura 9.2 – Dettaglio misure effettuate presso il gruppo di ricettori GR1 – Case Vighini*



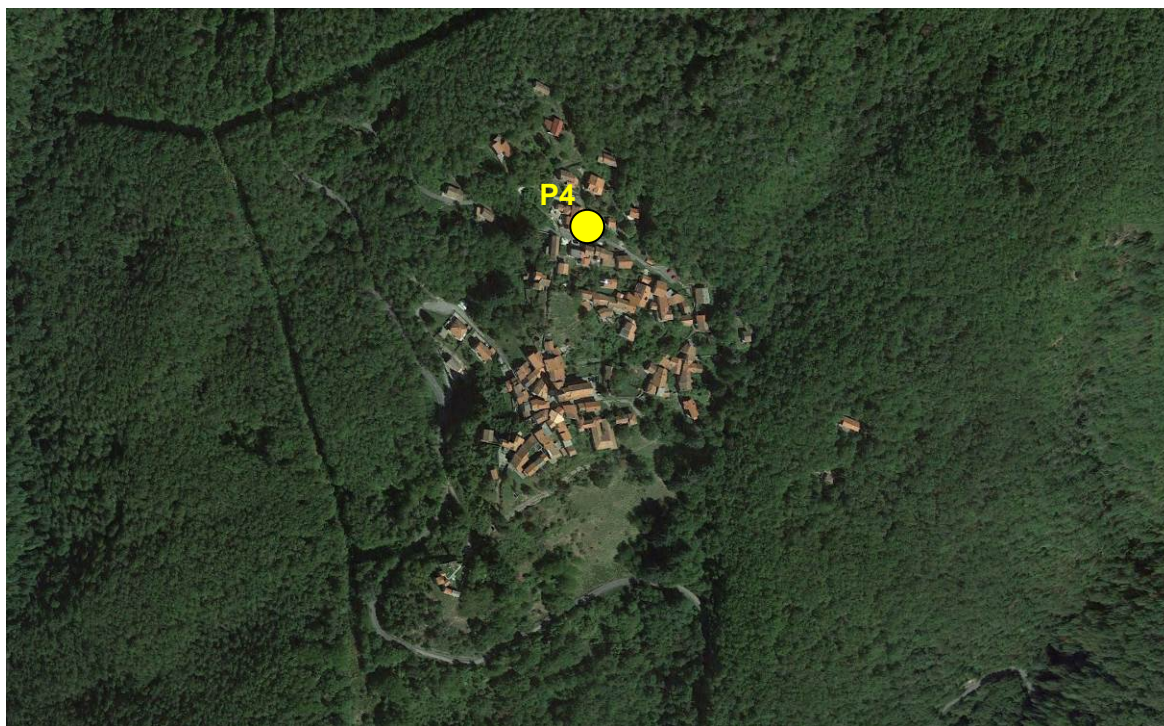


*Figura 9.3 - Dettaglio misure effettuate presso il gruppo di ricettori GR2 – Valdena*



*Figura 9.4 - Dettaglio misure effettuate presso il gruppo di ricettori GR3 – Passo del Brattello*





**Figura 9.5 - Dettaglio misure effettuate presso il gruppo di ricettori GR4 – Bratto**

Nel rispetto delle prescrizioni del D.M. 01/06/2022 (vedi paragrafo 6), in corrispondenza di ciascuno dei punti di misura, è stato acquisito il  $L_{Aeq}$  su base temporale di 1 s, integrato su intervalli temporali di 10 minuti. In contemporanea sono stati acquisiti i dati meteo ai ricettori descritti al paragrafo 6.

Dalle misure sono stati esclusi gli eventi anomali dovuti ad esempio al passaggio di mezzi a motore, ad animali, ad attività umane o ad altre sorgenti sonore eccezionali rispetto al rumore residuo (ad es. passaggio di velivoli, campane, ecc.). Sono stati inoltre esclusi gli intervalli interessati da precipitazioni atmosferiche e da velocità del vento al ricettore superiori a 5 m/s (media su 10 minuti).

Al fine di acquisire il maggior numero di informazioni utili alle valutazioni degli impatti, in parallelo alle misurazioni ai ricettori sono state effettuate misurazioni meteo nella zona del parco eolico mediante strumentazione Sodar, in grado di stimare la velocità del vento ad altezza mozzo; ciò ha permesso di escludere quegli intervalli di tempo in cui la velocità del vento ad altezza mozzo risultava minore della velocità di cut-in e maggiore di quella di cut-off.

Le misure per ciascuna postazione sono state protratte per una durata di almeno 24 ore, in modo da ottenere un minimo di 96 intervalli nel periodo diurno e 48 intervalli nel periodo notturno. In accordo alle prescrizioni del D.M. 01/06/2022, Allegato 2, punto 2 sono stati considerati validi tutti gli intervalli caratterizzati da eventi anomali di durata non superiore al 50% del tempo complessivo. Una volta esclusi gli intervalli interessati da eventi anomali o da condizioni meteo non conformi, si è ritenuta valida la campagna di misura avente almeno il 70% di dati validi, che equivalgono a 67 intervalli validi per il periodo diurno e 34 per quello notturno (D.M. 01/06/2022, Allegato 2, punto 3).

Di seguito si riporta una sintesi delle campagne di misura effettuate.





Gruppo di ricettori GR1 – Case Vighini, punto di misura P1

Posizione di misura: 44.476291° N, 9.815967° E

Data di inizio misurazioni: giovedì 27 aprile 2023, ore 11:54:31

Data di fine misurazioni: mercoledì 3 maggio 2023, ore 10:19:34

Numero intervalli validi periodo diurno: 446

Tempo di misurazione totale valido periodo diurno: 71:38:42

Numero intervalli validi periodo notturno: 234

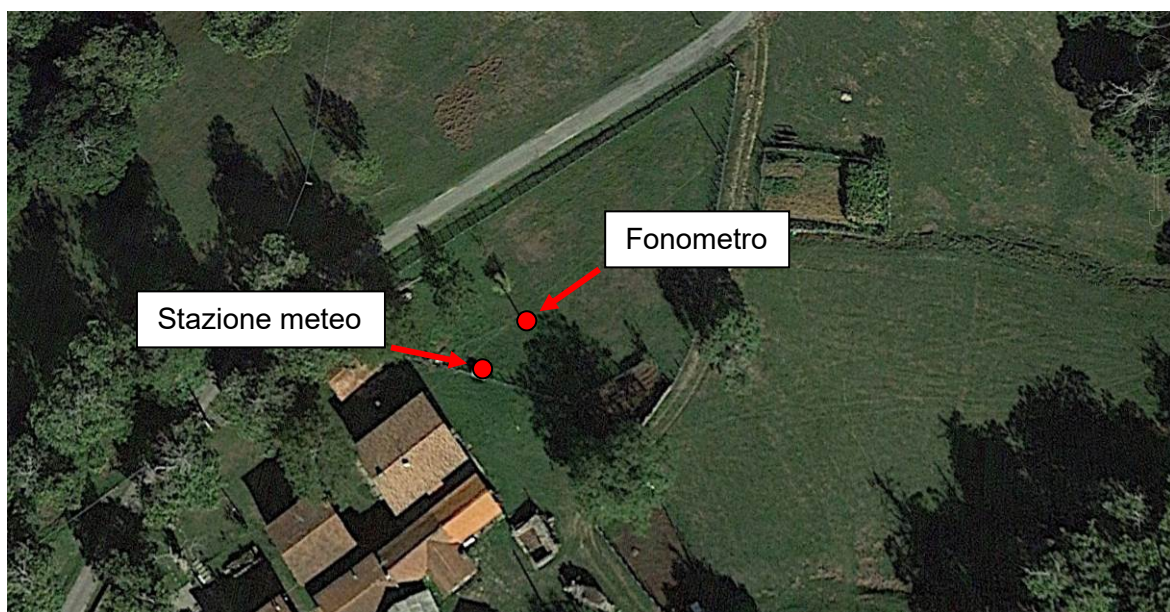
Tempo di misurazione totale valido periodo notturno: 14:38:25

Range di velocità del vento al ricettore nel periodo diurno,  $v_r$  (media su 10 min): 0.00 ÷ 3.10 m/s

Range di velocità del vento all'hub nel periodo diurno,  $V$  (media su 10 min): 3.09 ÷ 13.37 m/s

Range di velocità del vento al ricettore nel periodo notturno,  $v_r$  (media su 10 min): 0.00 ÷ 3.10 m/s

Range di velocità del vento all'hub nel periodo notturno,  $V$  (media su 10 min): 3.20 ÷ 13.81 m/s



**Figura 9.6 - Postazione P1 Case Vighini - Punti di installazione fonometro e stazione meteo**



**Figura 9.7 – Postazione P1 Case Vighini - Punto di installazione fonometro e stazione meteo**





Gruppo di ricettori GR2 – Valdena, punto di misura P2

Posizione di misura: 44.454580° N, 9.792220° E

Data di inizio misurazioni: mercoledì 3 maggio 2023, ore 13:45:27

Data di fine misurazioni: lunedì 8 maggio 2023, ore 10:30:52

Numero intervalli validi periodo diurno: 341

Tempo di misurazione totale valido periodo diurno: 53:37:28

Numero intervalli validi periodo notturno: 162

Tempo di misurazione totale valido periodo notturno: 26:56:52

Range di velocità del vento al ricettore nel periodo diurno,  $v_r$  (media su 10 min): 0.00 ÷ 2.20 m/s

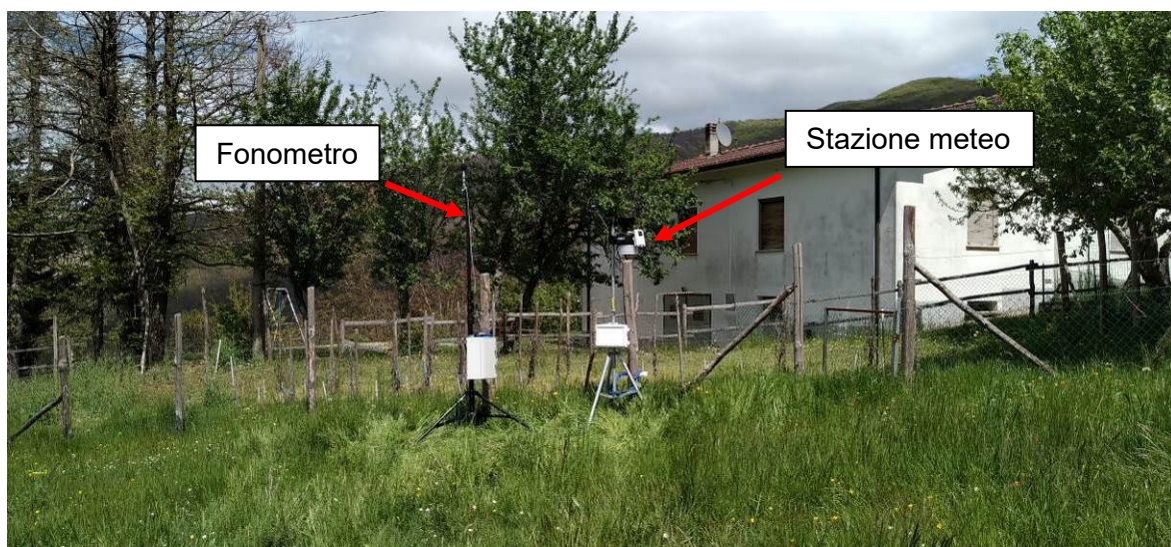
Range di velocità del vento all'hub nel periodo diurno,  $V$  (media su 10 min): 3.01 ÷ 9.46 m/s

Range di velocità del vento al ricettore nel periodo notturno,  $v_r$  (media su 10 min): 0.00 ÷ 1.30 m/s

Range di velocità del vento all'hub nel periodo notturno,  $V$  (media su 10 min): 3.03 ÷ 8.69 m/s



**Figura 9.8 - Postazione P2 Valdena - Punto di installazione fonometro e stazione meteo**



**Figura 9.9 - Postazione P2 Valdena - Punto di installazione fonometro e stazione meteo**



Gruppo di ricettori GR3 – Passo del Brattello, punto di misura P3

Posizione di misura: 44.457329° N, 9.824006° E

Data di inizio misurazioni prima trince: martedì 9 maggio 2023, ore 15:39:37

Data di fine misurazioni prima trince: mercoledì 10 maggio 2023, ore 18:02:01

Data di inizio misurazioni seconda trince: lunedì 22 maggio 2023, ore 17:28:24

Data di fine misurazioni seconda trince: martedì 23 maggio 2023, ore 09:52:53

Numero intervalli validi periodo diurno: 102

Tempo di misurazione totale valido periodo diurno: 16:51:14

Numero intervalli validi periodo notturno: 47

Tempo di misurazione totale valido periodo notturno: 07:47:20

Range di velocità del vento al ricettore nel periodo diurno,  $v_r$  (media su 10 min): 0.00 ÷ 3.60 m/s

Range di velocità del vento all'hub nel periodo diurno,  $V$  (media su 10 min): 3.02 ÷ 10.32 m/s

Range di velocità del vento al ricettore nel periodo notturno,  $v_r$  (media su 10 min): 0.00 ÷ 1.30 m/s

Range di velocità del vento all'hub nel periodo notturno,  $V$  (media su 10 min): 3.22 ÷ 8.40 m/s



**Figura 9.10 - Postazione P3 Passo del Brattello - Punto di installazione fonometro e stazione meteo**



**Figura 9.11 - Postazione P3 Passo del Brattello - Punto di installazione fonometro e stazione meteo**





Gruppo di ricettori GR4 – Bratto, punto di misura P4

Posizione di misura: 44.454655° N, 9.847977° E

Data di inizio misurazioni: lunedì 8 maggio 2023, ore 12:57:02

Data di fine misurazioni: martedì 9 maggio 2023, ore 13:53:12

Numero intervalli validi periodo diurno: 72

Tempo di misurazione totale valido periodo diurno: 11:41:16

Numero intervalli validi periodo notturno: 47

Tempo di misurazione totale valido periodo notturno: 07:36:08

Range di velocità del vento al ricettore nel periodo diurno,  $v_r$  (media su 10 min): 0.00 ÷ 1.80 m/s

Range di velocità del vento all'hub nel periodo diurno,  $V$  (media su 10 min): 3.03 ÷ 6.88 m/s

Range di velocità del vento al ricettore nel periodo notturno,  $v_r$  (media su 10 min): 0.00 ÷ 1.30 m/s

Range di velocità del vento all'hub nel periodo notturno,  $V$  (media su 10 min): 3.31 ÷ 5.50 m/s



**Figura 9.12 - Postazione P4 Bratto - Punto di installazione fonometro e stazione meteo**



**Figura 9.13 - Postazione P4 Bratto - Punto di installazione fonometro e stazione meteo**



In tutte e quattro le postazioni di misura è stato posizionato il microfono a circa 2.5/3.0 m dal suolo, giudicando tale altezza come mediamente rappresentativa della posizione dei ricettori; non è stato possibile installare la sonda meteo ad altezza  $\geq 3.0$  m dal suolo per motivi di stabilità della strumentazione stessa: pur essendo questa ancorata al terreno mediante picchetti, tenuto conto della ventosità propria dei siti e considerato che il peso dello strumento si trova gran parte concentrato in sommità, si è ritenuto più opportuno (ma non inficiante il dato acquisito) limitarne l'altezza a circa 2.0 m dal suolo.

All'inizio e al termine di ogni misura si è proceduto alla **calibrazione** dello strumento: la differenza tra i livelli misurati è risultata **inferiore ai  $\pm 0,2$  dB**, per cui le misurazioni effettuate sono valide secondo quanto dettato dal comma 3, art. 2 del decreto 16/03/1998, il quale consente una differenza  $\leq 0.5$  dB.

NOTA: tutte e quattro le postazioni di misura sono state individuate tra le poche alternative a disposizione, in quanto collocate in aree private a seguito di accordi con i rispettivi proprietari; le posizioni definitive degli strumenti sono state scelte tenendo conto della morfologia dei luoghi, della presenza di elementi interferenti (ad es. alberi d'alto fusto, strutture edilizie, ecc.), delle esigenze dei proprietari stessi e della sicurezza della strumentazione nei confronti di eventuali furti o manomissioni. Si ritiene che le postazioni individuate rispettino le prescrizioni riportate nel D.M. 01/06/2022, Allegato 1, punto 4 per la misura del livello ambientale in “Campo Libero”. Si ritiene inoltre che la misura in “Campo Libero”, per i casi in questione, sia maggiormente significativa rispetto a quella in “Facciata”, in quanto più rappresentativa del clima acustico generale di ciascun gruppo di ricettori e priva di interferenze o mascheramenti legati alla vicinanza di elementi interferenti.

## 9.2 RISULTATI DELLA CAMPAGNA DI MISURAZIONI

Ciascuna delle misure eseguite nei quattro punti di misura sono state elaborate in prima istanza col software Dbtrait v. 6.4.0 build 2 della 01dB (Acoem Group) e successivamente mediante files excel, secondo le modalità indicate dal D.M. 01/06/2022, Allegato 2, punto 2 e descritte al precedente paragrafo 6.

Rimandando ai tabulati allegati alla presente relazione per il report completo dei dati acquisiti e dei dati elaborati, di seguito si riporta una sintesi dei risultati per ciascun punto di misura.

### Punto di misura P1 – Case Vighini, gruppo di ricettori GR1

In Figura 9.14 è riportato l'andamento del  $L_{Aeq,10min}$  dell'intero periodo di misura, mentre in Figura 9.15 ne sono riportati i relativi spettri in frequenza minimo, medio e massimo.

In Tabella 9.1 e Tabella 9.2 sono riportati i risultati di  $L_{Aeq,10min}$  medio, per ciascuna delle classi di velocità del vento al ricettore  $v_r$ , ottenuti previa eliminazione dei dati relativi agli intervalli non conformi, secondo le modalità di cui al D.M. 01/06/2022, Allegato 2, punto 2, rispettivamente per il periodo diurno e per quello notturno.

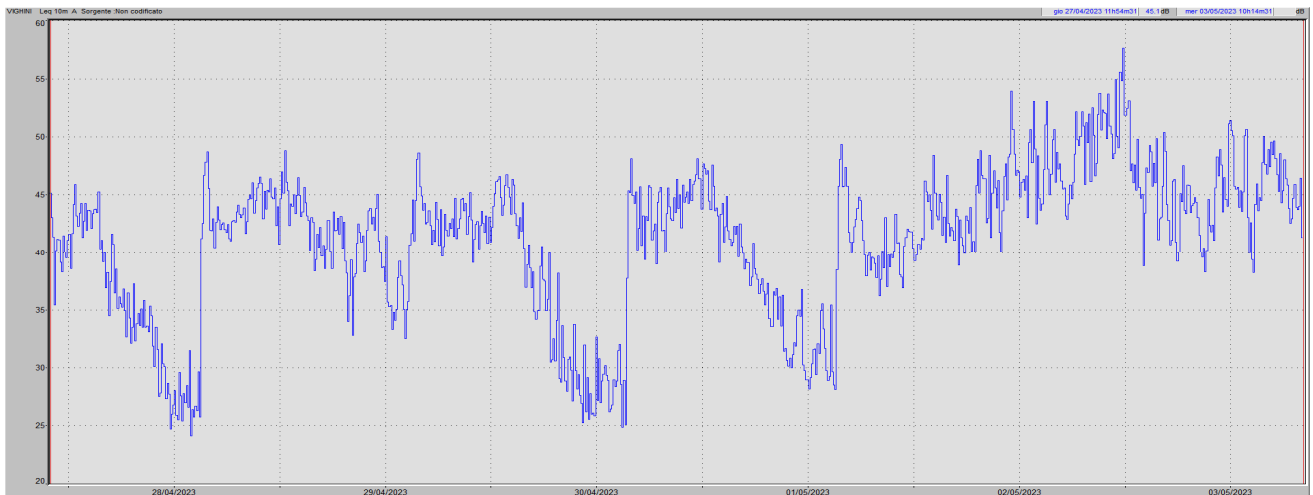


Figura 9.14 - Misura P1 –  $L_{Aeq,10min}$  – andamento nel tempo

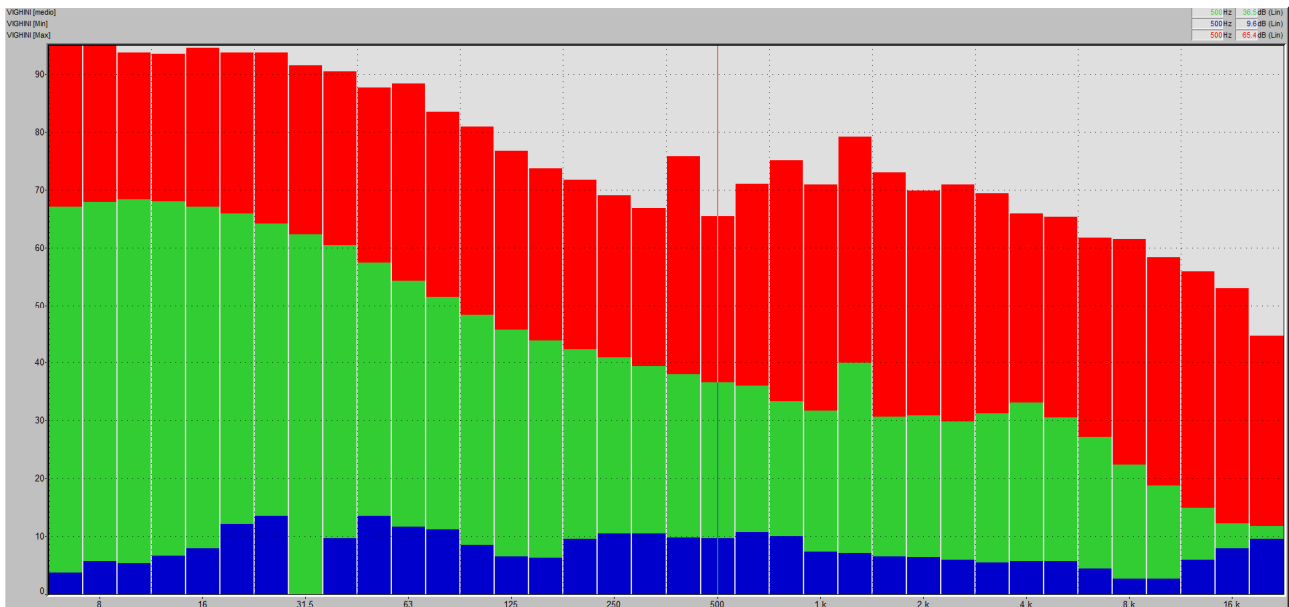


Figura 9.15 - Misura P1 –  $L_{Aeq,10min}$  – contenuto in frequenza minimo, medio e massimo

Data [gg/mm/aaaa]	$L_R$ [dB(A)]	$v_r$ [m/s]	V [m/s]	Classe di $v_r$ [m/s]
dal 27/04/2023 al 01/05/2023	41.8	0.7	6.5	0.0 ÷ 1.0
dal 27/04/2023 al 03/05/2023	43.4	1.5	8.0	1.0 ÷ 2.0
dal 27/04/2023 al 28/04/2023 e dal 30/04/2023 al 03/05/2023	47.7	2.3	9.0	2.0 ÷ 3.0
30/04/2023 e 02/05/2023	48.5	3.1	8.5	3.0 ÷ 4.0
-	-	-	-	4.0 ÷ 5.0

Tabella 9.1 – Misura P1 - Tabella 4 D.M. 01/06/2022, Allegato 2, punto 2 – periodo diurno





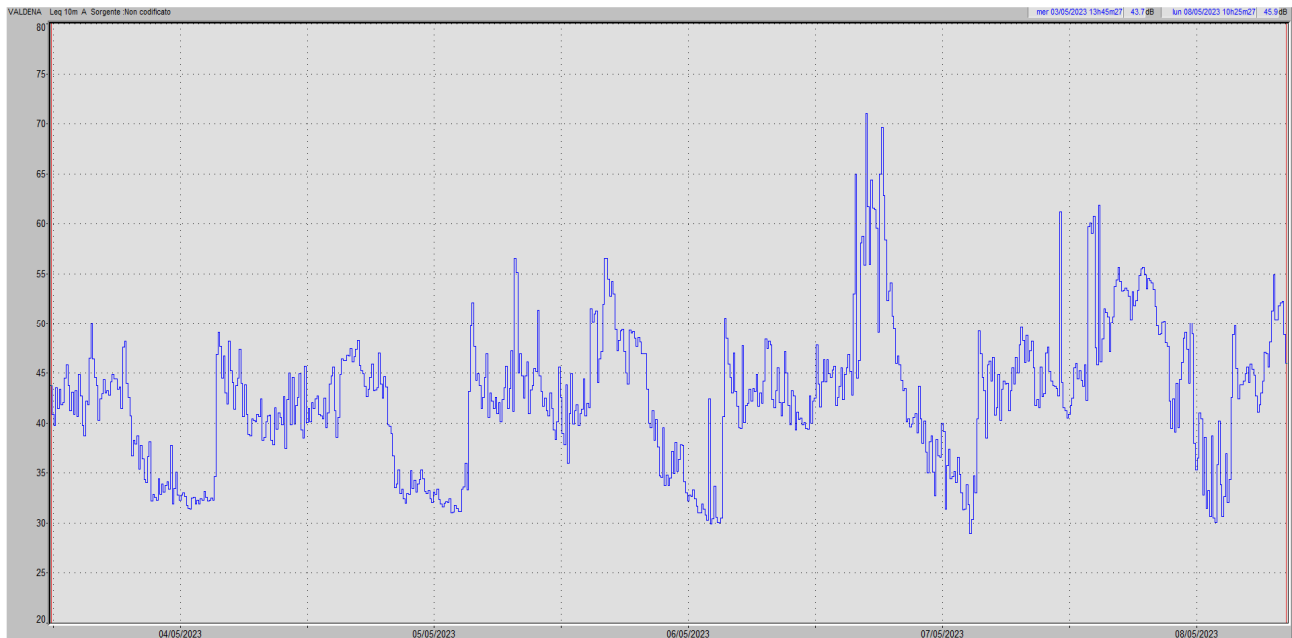
Data [gg/mm/aaaa]	L <sub>R</sub> [dB(A)]	v <sub>r</sub> [m/s]	V [m/s]	Classe di v <sub>r</sub> [m/s]
dal 27/04/2023 al 01/05/2023	37.7	0.5	7.8	0.0 ÷ 1.0
dal 28/04/2023 al 03/05/2023	43.4	1.5	9.5	1.0 ÷ 2.0
dal 01/05/2023 al 03/05/2023	48.2	2.3	10.9	2.0 ÷ 3.0
dal 02/05/2023 al 03/05/2023	52.2	3.1	11.4	3.0 ÷ 4.0
-	-	-	-	4.0 ÷ 5.0

**Tabella 9.2 – Misura P1 - Tabella 4 D.M. 01/06/2022, Allegato 2, punto 2 – periodo notturno**

#### Punto di misura P2 – Valdena, gruppo di ricettori GR2

In Figura 9.16 è riportato l'andamento del  $L_{Aeq,10min}$  dell'intero periodo di misura, mentre in Figura 9.17 ne sono riportati i relativi spettri in frequenza minimo, medio e massimo.

In Tabella 9.3 e Tabella 9.4 sono riportati i risultati di  $L_{Aeq,10min}$  medio, per ciascuna delle classi di velocità del vento al ricettore  $v_r$ , ottenuti previa eliminazione dei dati relativi agli intervalli non conformi, secondo le modalità di cui al D.M. 01/06/2022, Allegato 2, punto 2, rispettivamente per il periodo diurno e per quello notturno.



**Figura 9.16 - Misura P2 –  $L_{Aeq,10min}$  – andamento nel tempo**

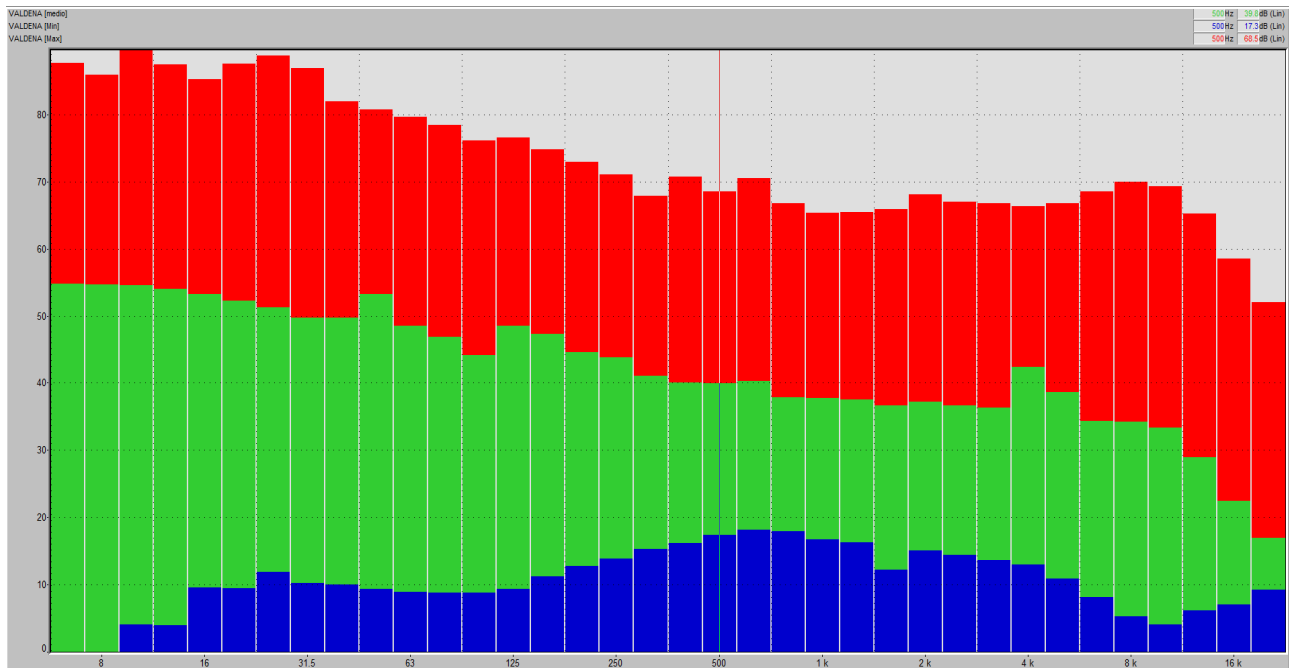


Figura 9.17 - Misura P2 –  $L_{Aeq,10min}$  – contenuto in frequenza minimo, medio e massimo

Data [gg/mm/aaaa]	$L_R$ [dB(A)]	$v_r$ [m/s]	V [m/s]	Classe di $v_r$ [m/s]
dal 03/05/2023 al 08/05/2023	47.0	0.5	5.2	0.0 ÷ 1.0
dal 03/05/2023 al 08/05/2023	46.0	1.4	6.6	1.0 ÷ 2.0
07/05/2023	47.0	2.2	7.6	2.0 ÷ 3.0
-	-	-	-	3.0 ÷ 4.0
-	-	-	-	4.0 ÷ 5.0

Tabella 9.3 – Misura P2 - Tabella 4 D.M. 01/06/2022, Allegato 2, punto 2 – periodo diurno

Data [gg/mm/aaaa]	$L_R$ [dB(A)]	$v_r$ [m/s]	V [m/s]	Classe di $v_r$ [m/s]
dal 03/05/2023 al 08/05/2023	42.0	0.2	5.1	0.0 ÷ 1.0
07/05/2023	50.2	1.3	7.5	1.0 ÷ 2.0
-	-	-	-	2.0 ÷ 3.0
-	-	-	-	3.0 ÷ 4.0
-	-	-	-	4.0 ÷ 5.0

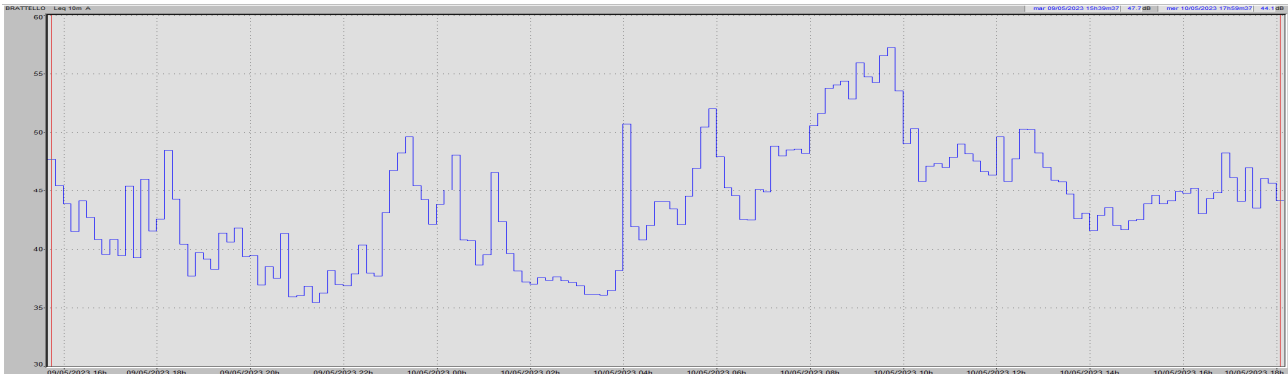
Tabella 9.4 – Misura P2 - Tabella 4 D.M. 01/06/2022, Allegato 2, punto 2 – periodo notturno



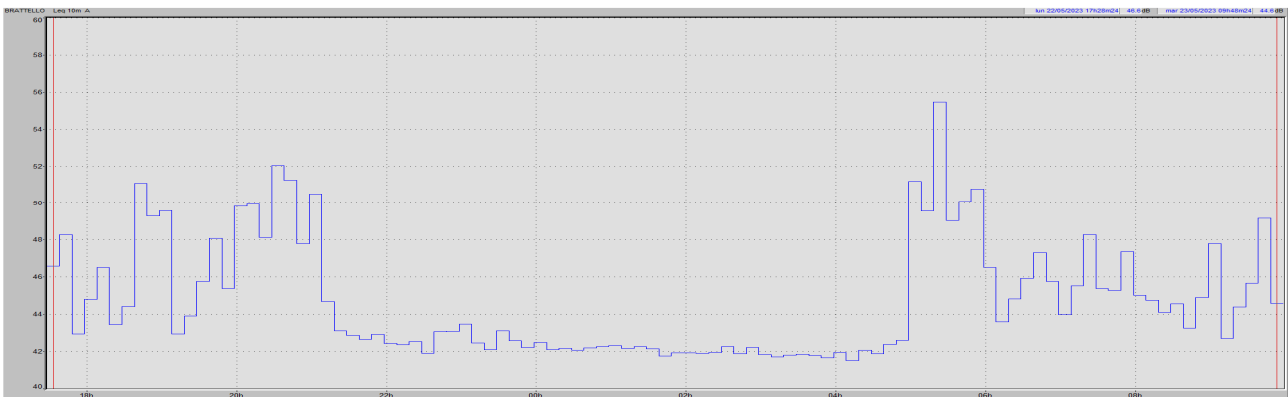
### Punto di misura P3 – Passo del Brattello, gruppo di ricettori GR3

In Figura 9.18 e Figura 9.19 è riportato l'andamento del  $L_{Aeq,10min}$  dell'intero periodo di misura, mentre in Figura 9.20 e Figura 9.21 ne sono riportati i relativi spettri in frequenza minimo, medio e massimo.

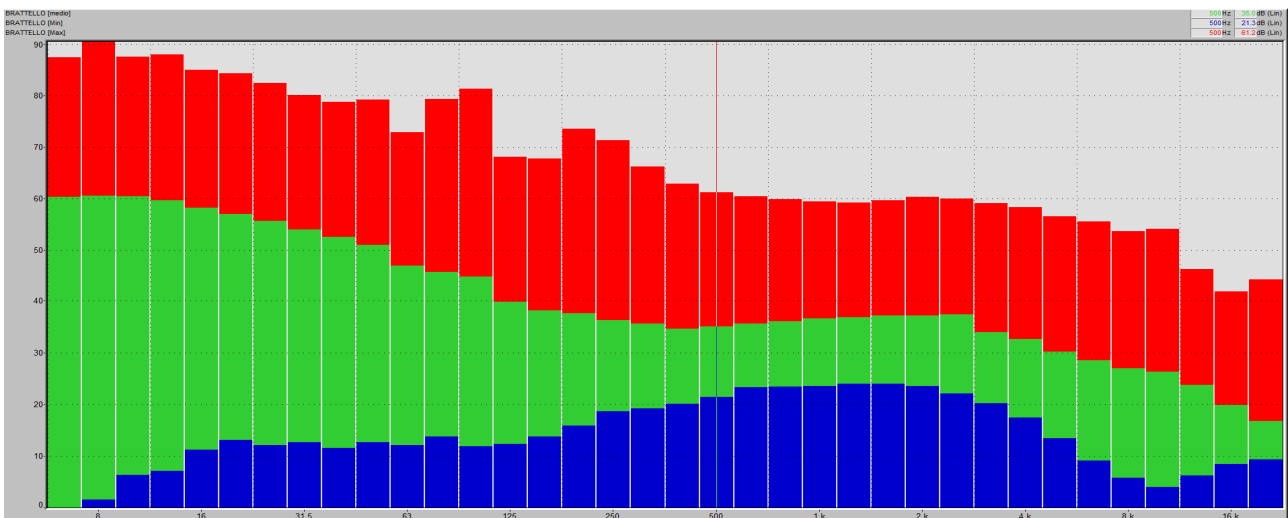
In Tabella 9.5 e Tabella 9.6 sono riportati i risultati di  $L_{Aeq,10min}$  medio, per ciascuna delle classi di velocità del vento al ricettore  $v_r$ , ottenuti previa eliminazione dei dati relativi agli intervalli non conformi, secondo le modalità di cui al D.M. 01/06/2022, Allegato 2, punto 2, rispettivamente per il periodo diurno e per quello notturno.



**Figura 9.18 - Misura P3, prima tranche (09-10/05/2023) –  $L_{Aeq,10min}$  – andamento nel tempo**



**Figura 9.19 - Misura P3, seconda tranche (22-23/05/2023) –  $L_{Aeq,10min}$  – andamento nel tempo**



**Figura 9.20 - Misura P3, prima tranche (09-10/05/2023) –  $L_{Aeq,10min}$  – contenuto in frequenza minimo, medio e massimo**

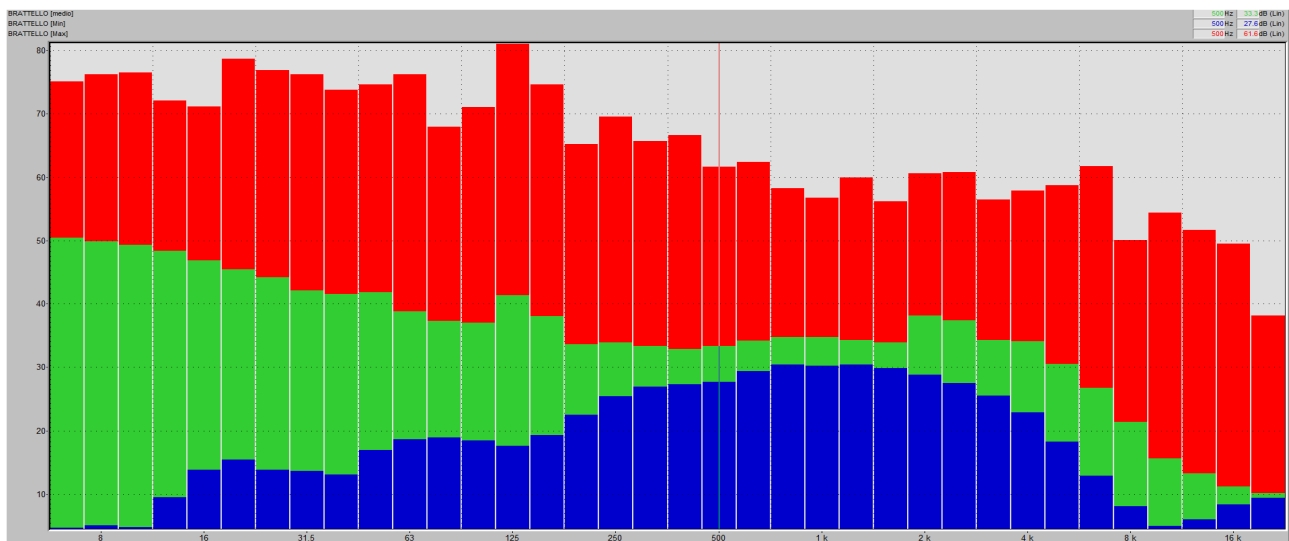


Figura 9.21 - Misura P3, seconda tranches (22-23/05/2023) –  $L_{Aeq,10min}$  – contenuto in frequenza minimo, medio e massimo

Data [gg/mm/aaaa]	$L_R$ [dB(A)]	$v_r$ [m/s]	V [m/s]	Classe di $v_r$ [m/s]
dal 09/05/2023 al 10/05/2023 e dal 22/05/2023 al 23/05/2023	43.2	0.6	5.4	0.0 ÷ 1.0
10/05/2023 e dal 22/05/2023 al 23/05/2023	45.0	1.5	7.8	1.0 ÷ 2.0
10/05/2023	45.9	2.4	8.7	2.0 ÷ 3.0
10/05/2023	48.2	3.3	8.4	3.0 ÷ 4.0
-	-	-	-	4.0 ÷ 5.0

Tabella 9.5 – Misura P3 - Tabella 4 D.M. 01/06/2022, Allegato 2, punto 2 – periodo diurno

Data [gg/mm/aaaa]	$L_R$ [dB(A)]	$v_r$ [m/s]	V [m/s]	Classe di $v_r$ [m/s]
dal 09/05/2023 al 10/05/2023 e dal 22/05/2023 al 23/05/2023	42.7	0.6	4.8	0.0 ÷ 1.0
dal 22/05/2023 al 23/05/2023	42.3	1.3	4.8	1.0 ÷ 2.0
-	-	-	-	2.0 ÷ 3.0
-	-	-	-	3.0 ÷ 4.0
-	-	-	-	4.0 ÷ 5.0

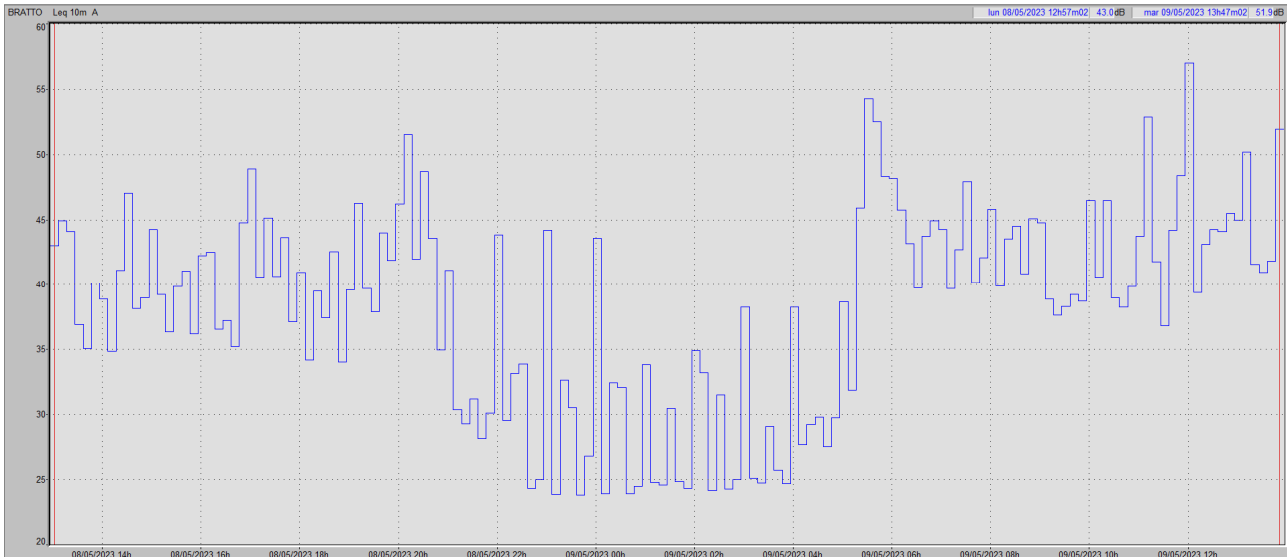
Tabella 9.6 – Misura P3 - Tabella 4 D.M. 01/06/2022, Allegato 2, punto 2 – periodo notturno



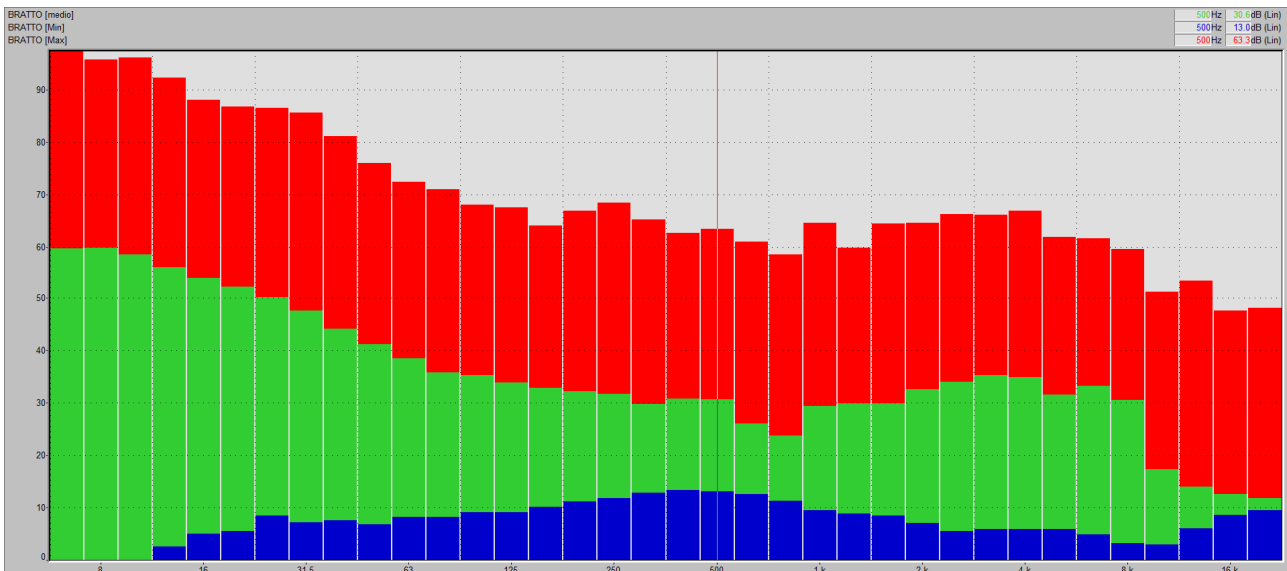
### Punto di misura P4 – Bratto, gruppo di ricettori GR4

In Figura 9.22 è riportato l'andamento del  $L_{Aeq,10min}$  dell'intero periodo di misura, mentre in Figura 9.23 ne sono riportati i relativi spettri in frequenza minimo, medio e massimo.

In Tabella 9.7 e Tabella 9.8 sono riportati i risultati di  $L_{Aeq,10min}$  medio, per ciascuna delle classi di velocità del vento al ricettore  $v_r$ , ottenuti previa eliminazione dei dati relativi agli intervalli non conformi, secondo le modalità di cui al D.M. 01/06/2022, Allegato 2, punto 2, rispettivamente per il periodo diurno e per quello notturno.



**Figura 9.22 - Misura P4 –  $L_{Aeq,10min}$  – andamento nel tempo**



**Figura 9.23 - Misura P4 –  $L_{Aeq,10min}$  – contenuto in frequenza minimo, medio e massimo**





Data [gg/mm/aaaa]	L <sub>R</sub> [dB(A)]	v <sub>r</sub> [m/s]	V [m/s]	Classe di v <sub>r</sub> [m/s]
dal 08/05/2023 al 09/05/2023	42.0	0.5	4.5	0.0 ÷ 1.0
dal 08/05/2023 al 09/05/2023	40.1	1.4	5.8	1.0 ÷ 2.0
-	-	-	-	2.0 ÷ 3.0
-	-	-	-	3.0 ÷ 4.0
-	-	-	-	4.0 ÷ 5.0

**Tabella 9.7 – Misura P4 - Tabella 4 D.M. 01/06/2022, Allegato 2, punto 2 – periodo diurno**

Data [gg/mm/aaaa]	L <sub>R</sub> [dB(A)]	v <sub>r</sub> [m/s]	V [m/s]	Classe di v <sub>r</sub> [m/s]
dal 08/05/2023 al 09/05/2023	39.1	0.2	4.6	0.0 ÷ 1.0
09/05/2023	33.5	1.3	5.0	1.0 ÷ 2.0
-	-	-	-	2.0 ÷ 3.0
-	-	-	-	3.0 ÷ 4.0
-	-	-	-	4.0 ÷ 5.0

**Tabella 9.8 – Misura P4 - Tabella 4 D.M. 01/06/2022, Allegato 2, punto 2 – periodo notturno**

### 9.3 STIMA DELL'INCERTEZZA DI MISURA

Per la stima dell'incertezza di misura si è fatto riferimento alla norma UNI/TR 11326:2009 ed alle “Linee guida per il controllo e il monitoraggio acustico ai fini delle verifiche di ottemperanza delle prescrizioni VIA” che in Appendice 3 ne contengono una sintesi.

Le incertezze di misura sono classificate nelle due seguenti categorie in base alle procedure utilizzate per la loro valutazione:

- **Categoria A:** incertezza valutata mediante analisi statistica di una serie di osservazioni, che contribuisce all'incertezza di una misura mediante uno scarto tipo della media stimata  $u_i$ , uguale alla radice quadrata della varianza della media stimata  $u_i^2$ ;
- **Categoria B:** incertezza valutata mediante altri metodi, quali l'assunzione a priori di una distribuzione di probabilità dei valori misurati e della relativa varianza  $u_j^2$ , da cui si ricava uno scarto tipo assunto  $u_j$ ; in genere si presuppone che la distribuzione sia uniforme se vengono forniti solo un limite inferiore e superiore per la dispersione dei risultati.

L'incertezza finale delle misure eseguite viene espressa in termini di incertezza estesa U, definita come quel parametro che definisce, intorno al risultato di una misurazione, un intervallo che ci si



aspetta comprendere una frazione rilevante della distribuzione di valori attribuibili al misurando; l'incertezza estesa deve avere fattore di copertura  $k$  tale da garantire un livello di fiducia del 95%. A tal fine, nel caso di misurazione singola e incertezza stimata con procedure di tipo B, si può porre  $k = 1.96 \approx 2$ .

I contributi di incertezza considerati sono i seguenti:

1. Incetezza strumentale: in base a quanto riportato nella norma NUI/TR 11326:2009, punto 5, per strumentazione di classe 1, il contributo complessivo dell'incertezza strumentale (comprendente la procedura di calibrazione) per misure di  $L_{Aeq}$  in banda larga può essere posto  **$u_{str} = 0.5 \text{ dB(A)}$** .
2. Incetezza associata alle condizioni di misura (riproducibilità): tale contributo è essenzialmente legato alla distanza sorgente-ricettore, alla distanza da superfici riflettenti e all'altezza dal suolo; sulla base delle indicazioni della UNI/TR 11326:2009 e delle linee guida ISPRA, si considera una stima cautelativa  **$u_{cond} = 0.3 \text{ dB(A)}$** .
3. Incetezza legata alla tipologia di sorgente (ripetibilità): dal momento che il presente studio riguarda la fase previsionale ante operam, le misurazioni eseguita in questa fase non riguardano alcuna sorgente specifica ma solo la rilevazione del rumore residuo; l'incetezza legata alla sorgente eolica ed al modello di propagazione adottato (ISO 9213-2) è stata valutata al successivo paragrafo 10.2. Per quanto riguarda le misure del rumore residuo si pone  **$u_{sorg} = 0.0 \text{ dB(A)}$** .
4. Incetezza associata alla variabilità delle condizioni meteo: in condizioni meteo “favorevoli” e cioè con punto di misura sottovento rispetto alla sorgente, in condizioni di inversione termica o con gradiente di temperatura non troppo negativo e con distanza sorgente-ricettore non superiore a 400 m (trattandosi di misurazioni di rumore residuo, per le sorgenti che caratterizzano i siti di misura, tale distanza si ritiene rispettata), il contributo di incetezza associato alla variabilità delle condizioni meteo può essere considerato pari a  **$u_{meteo} = 1.0 \text{ dB(A)}$** .
5. Incetezza dovuta all'arrotondamento: la normativa impone l'arrotondamento del livello equivalente di pressione sonora fornito pari a 0.5 dB. Tale operazione comporta un ulteriore termine di incetezza, di cui si deve tener conto. Considerando pertanto di avere uno scostamento massimo tra il valore prima e dopo l'arrotondamento pari a 0.25 dB, assumendo una distribuzione rettangolare, si ottiene  **$u_{arr} = 0.25 / \sqrt{3} = 0.14 \text{ dB}$** .

L'incetezza complessiva di ciascuna misura viene calcolata con la seguente formula:

$$u_{ind} = \sqrt{u_{str}^2 + u_{cond}^2 + u_{sorg}^2 + u_{meteo}^2 + u_{arr}^2}$$

da cui si ricava  **$u_{ind} = 1.2 \text{ dB(A)}$** .

L'incetezza estesa  $U$  equivale al prodotta tra incetezza complessiva e fattore di copertura  $k$ , per cui:

$$U = u_{ind} \times k = 1.2 \text{ dB(A)} \times 2 = 2.4 \text{ dB(A)}$$

Tale valore sarà applicato in aggiunta o in sottrazione (a seconda della condizione più cautelativa in base alla verifica da eseguire) ai valori di  $L_R$  per ciascuna classe di velocità del vento al ricettore  $V_r$ .



## 9.4 CONSIDERAZIONI IN MERITO ALLA RAPPRESENTATIVITÀ DELLE MISURE DELLE NORMALI CONDIZIONI DEI LUOGHI

In merito alla rappresentatività delle misure effettuate delle effettive condizioni dei luoghi, occorre fare riferimento ai dati a disposizione, derivanti dalla campagna anemometrica eseguita da marzo 2006 a luglio 2008 nei pressi dell'areale interessato dagli aerogeneratori di cui al presente progetto. Tali dati si riferiscono ai valori medi mensili delle velocità del vento misurate a diverse altezze dal suolo (40 m, 30 m e 20 m) e della temperatura.

Il grafico raffigurato in Figura 9.24 mostra una sostanziale costanza dei valori di velocità del vento, con variabilità limitata, caratterizzata da picchi di ventosità nel periodo invernale e valori minimi nel mese di settembre. I dati relativi ai mesi da aprile ad agosto sono grosso modo rappresentativi dei valori medi annuali. La stessa osservazione può essere estesa anche ai siti dei ricettori, vista la prossimità degli stessi all'area interessata dal progetto.

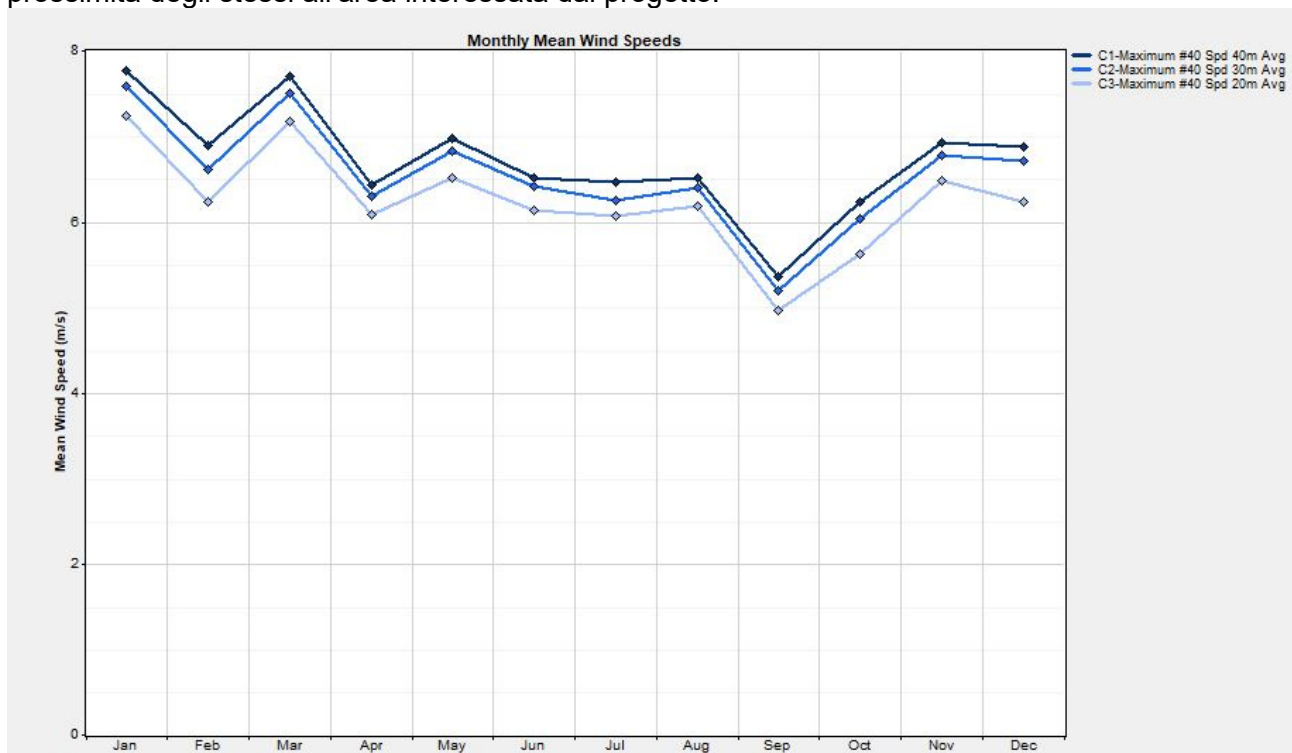


Figura 9.24 – Campagna anemometrica 2006-2008

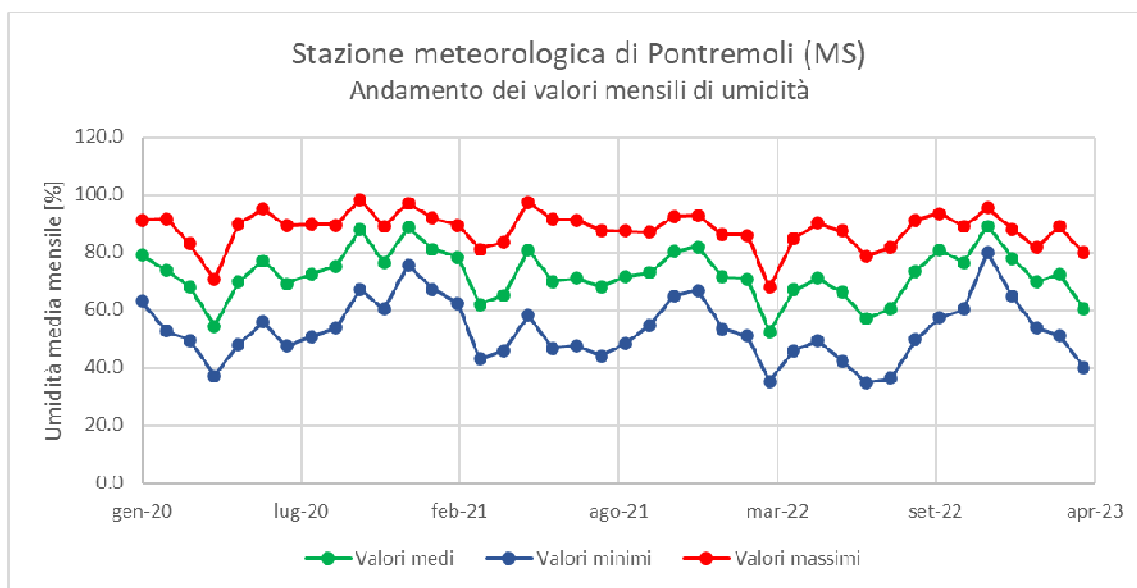
Le misure anemometriche eseguite con strumentazione SODAR nei pressi del parco eolico in progetto, in contemporanea alle misure di rumore residuo ai ricettori, hanno mostrato valori medi di velocità del vento in linea con quelli registrati dalla campagna anemometrica 2006-2008, pur con valori limite superiori leggermente più elevati, essendo riferiti all'altezza mozzo di 115 m.

In corrispondenza del gruppo di ricettori GR1 – Case Vighini si ritiene che le condizioni di ventosità tipiche siano state coperte interamente con dati riferiti ai range di  $v_r$  da  $0 \div 1$  m/s a  $3 \div 4$  m/s; il range di  $v_r$   $4 \div 5$  m/s si ritiene poco probabile considerando che la  $v_r$  viene valutata come media su intervalli temporali di 10 minuti. Qualora comunque anche tali condizioni di ventosità possano verificarsi, ai fini delle verifiche risulterebbero poco significative, in quanto il rumore residuo maschererebbe completamente il rumore specifico della sorgente eolica al ricettore (condizione che peraltro si verifica già per gli intervalli  $2 \div 3$  m/s e  $3 \div 4$  m/s), come si può verificare al successivo paragrafo 10.3 - VERIFICA DEI LIMITI NORMATIVI IN FASE DI ESERCIZIO DELL'IMPIANTO.



Allo stesso modo, negli altri gruppi di ricettori GR2 – Valdena, GR3 – Passo del Brattello e GR4 – Bratto, i range di  $v_r$  non coperti dalle misure non risultano significativi, in quanto in virtù delle considerevoli distanze tra sorgenti e ricettori, il rumore specifico della sorgente eolica propagato al ricettore risulta pressoché ininfluente sul rumore ambientale totale di progetto.

Per maggior completezza sono state analizzate anche le condizioni di umidità ambientale, confrontando i dati misurati dalla centralina meteo, installata durante ciascuna misura fonometrica, con i dati stagionali relativi alla stazione meteo di Pontremoli, MS (stazione meteo più vicina al sito tra quelle con dati pubblici disponibili), riferiti al periodo dal 01/01/2020 al 18/04/2023; anche in questo caso i valori misurati ai ricettori rientrano nel range dei dati stagionali, con valori medi di umidità attorno al 70% (Figura 9.25).



**Figura 9.25 – Stazione meteo di Pontremoli - Andamento stagionale dell'umidità da gen-2020 ad apr-2023**



## 10 CALCOLO DEI LIVELLI EX-POST E RISULTATI

### 10.1 PREMESSA

I calcoli previsionali relativi alla fase di esercizio dell'impianto sono stati condotti con l'ausilio del software windPRO v. 3.6.366, basato sul modello di calcolo definito dalla ISO 9613-2 generale.

Il programma esegue le verifiche prendendo in considerazione la potenza sonora di ciascun aerogeneratore per diverse velocità del vento da 3.0 m/s (velocità di cut-in dell'aerogeneratore di progetto) a 10.0 m/s ad intervalli di 1 m/s. Come spettro di emissione è stato considerato il più gravoso in termini di potenza sonora emessa tra tutti quelli relativi ai modelli commerciali che vanno a definire l'aerogeneratore di progetto, descritto sinteticamente nel precedente paragrafo 8.3 e compiutamente nell'elaborato PA-R.2\_rev01 e relativi allegati, a cui si rimanda per una trattazione più completa.

Frequency	Hub height wind speeds [m/s]																	
	3 m/s	4 m/s	5 m/s	6 m/s	7 m/s	8 m/s	9 m/s	10 m/s	11 m/s	12 m/s	13 m/s	14 m/s	15 m/s	16 m/s	17 m/s	18 m/s	19 m/s	20 m/s
6.3 Hz	10.8	11.8	15.0	18.5	21.6	24.4	25.4	25.2	25.0	24.7	24.7	24.8	25.0	25.2	25.5	25.8	26.2	26.5
8 Hz	18.1	19.0	22.3	25.8	28.9	31.7	32.7	32.6	32.3	32.1	32.0	32.1	32.3	32.6	32.8	33.2	33.5	33.8
10 Hz	24.5	25.4	28.7	32.2	35.4	38.2	39.2	39.1	38.8	38.6	38.5	38.6	38.8	39.1	39.3	39.7	40.0	40.3
12.5 Hz	30.6	31.5	34.8	38.3	41.5	44.4	45.4	45.2	45.0	44.8	44.7	44.8	45.0	45.3	45.5	45.8	46.1	46.4
16 Hz	36.9	37.8	41.2	44.7	47.9	50.8	51.8	51.7	51.4	51.2	51.1	51.2	51.4	51.7	51.9	52.2	52.5	52.8
20 Hz	42.3	43.2	46.5	50.1	53.3	56.2	57.2	57.1	56.9	56.6	56.6	56.7	56.9	57.1	57.3	57.6	57.9	58.2
25 Hz	47.4	48.3	51.6	55.2	58.4	61.3	62.3	62.2	62.0	61.8	61.7	61.8	62.0	62.2	62.4	62.7	63.0	63.2
31.5 Hz	52.3	53.1	56.5	60.1	63.3	66.2	67.2	67.1	66.9	66.7	66.7	66.7	66.9	67.1	67.3	67.6	67.8	68.1
40 Hz	57.0	57.8	61.1	64.7	68.0	70.9	71.9	71.8	71.6	71.4	71.4	71.5	71.6	71.8	72.0	72.2	72.5	72.7
50 Hz	61.0	61.8	65.1	68.8	72.0	74.9	75.9	75.8	75.6	75.5	75.4	75.5	75.7	75.8	76.0	76.2	76.5	76.7
63 Hz	64.9	65.6	68.9	72.6	75.8	78.7	79.7	79.6	79.5	79.3	79.3	79.3	79.5	79.6	79.8	80.0	80.2	80.4
80 Hz	68.4	69.2	72.5	76.1	79.4	82.3	83.3	83.2	83.0	82.9	82.9	82.9	83.0	83.2	83.3	83.5	83.7	83.9
100 Hz	71.5	72.2	75.4	79.1	82.3	85.2	86.2	86.2	86.0	85.9	85.8	85.9	86.0	86.2	86.3	86.5	86.7	86.8
125 Hz	74.1	74.8	78.1	81.7	85.0	87.9	88.9	88.8	88.6	88.5	88.5	88.6	88.7	88.8	88.9	89.1	89.2	89.4
160 Hz	76.7	77.4	80.6	84.2	87.5	90.4	91.3	91.3	91.2	91.1	91.0	91.1	91.2	91.3	91.4	91.5	91.7	91.8
200 Hz	78.7	79.3	82.5	86.1	89.4	92.3	93.2	93.2	93.1	93.0	93.0	93.0	93.1	93.2	93.3	93.4	93.5	93.6
250 Hz	80.4	81.0	84.1	87.7	91.0	93.8	94.8	94.7	94.7	94.6	94.6	94.6	94.7	94.7	94.8	94.9	95.0	95.1
315 Hz	81.7	82.3	85.4	89.0	92.2	95.1	96.0	96.0	95.9	95.9	95.9	95.9	95.9	96.0	96.0	96.1	96.2	96.3
400 Hz	82.8	83.3	86.3	89.9	93.1	96.0	96.9	96.9	96.9	96.8	96.8	96.8	96.9	96.9	96.9	97.0	97.0	97.1
500 Hz	83.4	83.9	86.9	90.4	93.6	96.5	97.4	97.4	97.4	97.3	97.3	97.3	97.4	97.4	97.4	97.4	97.5	97.5
630 Hz	83.7	84.2	87.1	90.6	93.8	96.6	97.5	97.5	97.5	97.5	97.5	97.5	97.5	97.5	97.5	97.5	97.5	97.5
800 Hz	83.7	84.1	86.9	90.4	93.6	96.4	97.3	97.3	97.3	97.3	97.3	97.3	97.3	97.3	97.3	97.3	97.2	97.2
1 kHz	83.3	83.6	86.4	89.9	93.1	95.8	96.7	96.7	96.8	96.8	96.8	96.8	96.8	96.8	96.7	96.7	96.6	96.5
1.25 kHz	82.6	82.8	85.6	89.0	92.2	94.9	95.8	95.8	95.9	95.9	95.9	95.9	95.9	95.9	95.8	95.7	95.7	95.6
1.6 kHz	81.4	81.6	84.3	87.7	90.8	93.5	94.3	94.4	94.5	94.6	94.6	94.5	94.5	94.4	94.3	94.2	94.1	94.0
2 kHz	80.0	80.1	82.7	86.1	89.2	91.9	92.7	92.8	92.9	93.0	93.0	92.9	92.9	92.8	92.6	92.5	92.4	92.2
2.5 kHz	78.2	78.3	80.9	84.2	87.2	89.9	90.7	90.8	90.9	91.0	91.1	91.0	90.9	90.8	90.6	90.5	90.3	90.1
3.15 kHz	76.0	76.1	78.6	81.8	84.9	87.5	88.3	88.4	88.5	88.7	88.7	88.6	88.5	88.4	88.2	88.0	87.8	87.6
4 kHz	73.4	73.5	75.8	79.0	82.0	84.6	85.4	85.5	85.7	85.8	85.9	85.8	85.7	85.5	85.3	85.1	84.8	84.6
5 kHz	70.7	70.6	72.9	76.1	79.0	81.6	82.3	82.4	82.6	82.8	82.9	82.8	82.6	82.4	82.2	81.9	81.7	81.4
6.3 kHz	67.4	67.4	69.5	72.6	75.6	78.1	78.8	78.9	79.2	79.4	79.4	79.3	79.1	78.9	78.7	78.4	78.0	77.8
8 kHz	63.7	63.6	65.7	68.7	71.6	74.1	74.7	74.9	75.2	75.4	75.5	75.4	75.2	74.9	74.6	74.3	73.9	73.6
10 kHz	59.9	59.7	61.7	64.7	67.5	69.9	70.6	70.8	71.1	71.4	71.4	71.3	71.1	70.8	70.5	70.1	69.7	69.3
A-wgt	93.2	93.6	96.5	100.0	103.2	106.0	106.9	106.9	106.9	106.9	106.9	106.9	106.9	106.9	106.9	106.9	106.9	106.9

Tabella 10.1 – Spettro di emissione sonora aerogeneratore di progetto (Spettro V136-4.2MW PO1-0S)



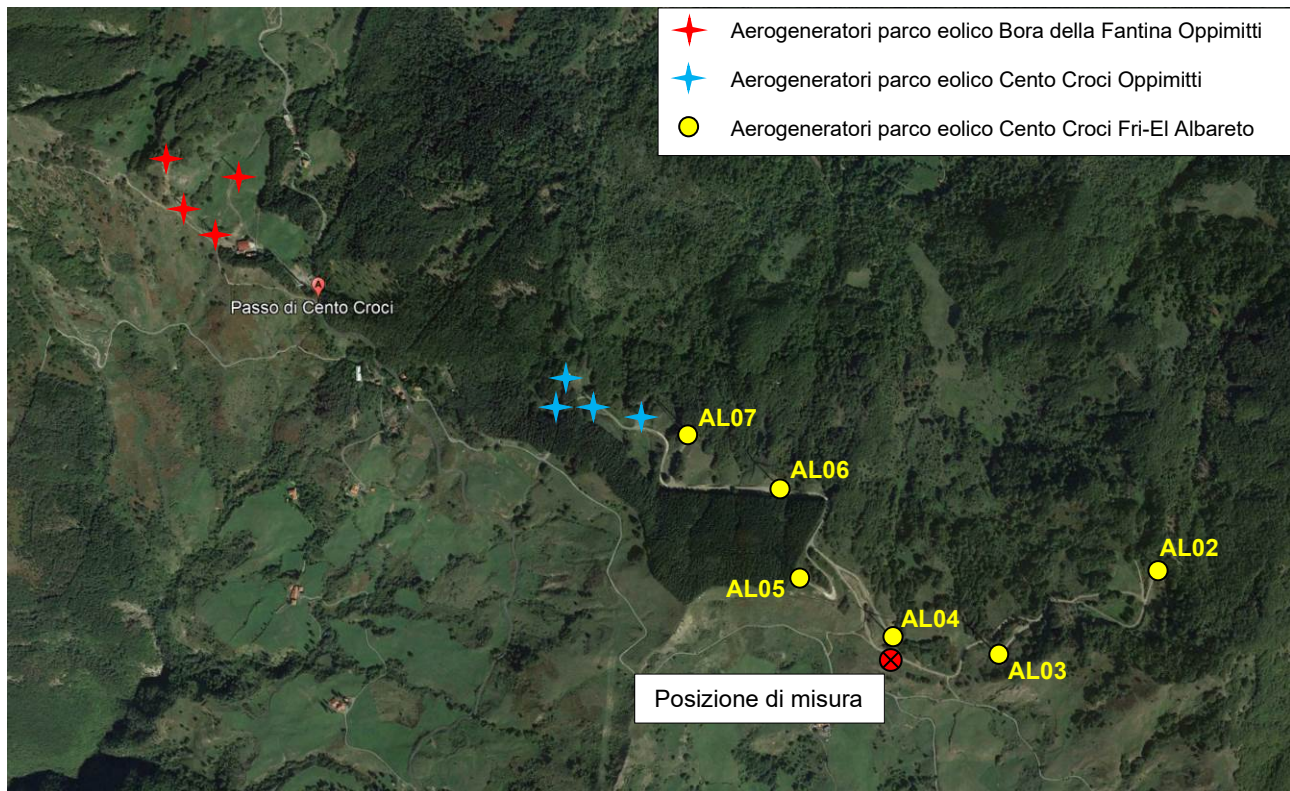
Si osserva che la potenza sonora massima è raggiunta già a 9.0 m/s, mantenendosi costante per velocità del vento maggiori.

Le distanze tra sorgenti e ricettori sono valutate analiticamente in base alle coordinate geografiche WGS84 di ciascuno dei rispettivi punti definiti nel modello.

## 10.2 MISURA PRELIMINARE DI TARATURA DEL MODELLO

Al fine di valutare la validità del modello di calcolo utilizzato per la propagazione del rumore emesso dalla sorgente eolica, è stata effettuata una misura di verifica presso il parco eolico nel comune di Albareto, PR di proprietà di Fri-El Albareto S.r.l., società del Gruppo Fri-El di cui fa parte la società Borgotaro Wind S.r.l., proponente del presente progetto.

Il parco eolico di Albareto è costituito da n. 6 aerogeneratori, modello Vestas V117 3.3MW HH80m, denominati AL02, AL03, AL04, AL05, AL06 e AL07, posizionati nei pressi del Passo Cento Croci, come illustrato in Figura 10.1. Nella stessa zona sono presenti altri otto aerogeneratori della ditta Oppimitti di dimensioni inferiori.



**Figura 10.1 – Ortofoto con l'indicazione degli aerogeneratori presenti nella zona di misura**

Il punto in cui è stata posizionata la strumentazione di misura è stata scelta secondo i seguenti criteri:

- posizione baricentrica rispetto al parco eolico Fri-El Albareto (in prossimità dell'AL04);
- posizione ravvicinata all'AL04 in modo da escludere l'influenza degli aerogeneratori dei parchi eolici limitrofi (proprietà Oppimitti) e da rilevare in particolar modo il contributo del rumore diretto degli aerogeneratori Fri-El Albareto;
- posizione sottovento rispetto all'aerogeneratore più vicino AL04.

Il sito in cui è stata eseguita la misura è caratterizzato da un rumore di fondo trascurabile, essendo il relativo clima acustico fortemente influenzato dal rumore legato al vento ed alla sorgente eolica.



In contemporanea alle misure fonometriche sono state eseguite anche le registrazioni dei principali dati meteo. Fri-El ha fornito inoltre i corrispondenti dati anemologici misurati al mozzo di ciascun aerogeneratore.

Di seguito si riportano le caratteristiche della misura effettuata:

Posizione di misura: 44.412171° N, 9.643769° E, altitudine microfono 1105 m s.l.m.

Data di inizio misurazioni: giovedì 18 maggio 2023, ore 12:35:18

Data di fine misurazioni: giovedì 18 maggio 2023, ore 14:46:05

Le posizioni degli aerogeneratori Fri-El Albareto sono riportate in Tabella 10.2:

Nome	Longitudine	Latitudine	Altitudine
AL02	9.65325°	44.414472°	1143 m
AL03	9.647611°	44.412361°	1116 m
AL04	9.643972°	44.412722°	1090 m
AL05	9.640611°	44.414278°	1110 m
AL06	9.640000°	44.4165°	1081 m
AL07	9.636806°	44.417889°	1075 m

**Tabella 10.2 – Posizioni aerogeneratori Fri-El Albareto**

In Tabella 10.3 è riportata la curva di emissione per l'aerogeneratore Vestas V117 3.3MW HH80m per la modalità Load Optimized Mode LO1.

Sound Power Level at Hub Height	
Conditions for Sound Power Level:	Measurement standard IEC 61400-11 ed. 3 Maximum turbulence at hub height: 30% Inflow angle (vertical): 0 ±2° Air density: 1.225 kg/m <sup>3</sup>
Wind speed at hub height [m/s]	Sound Power Level at Hub Height [dBA] Load Optimized Mode LO1 (Blades with serrated trailing edge)
3	92.1
4	93.9
5	97.1
6	100.4
7	103.4
8	105.5
9	105.8
10	105.8
11	105.8
12	105.8
13	105.8
14	105.8
15	105.8
16	105.8
17	105.8
18	105.8
19	105.8
20	105.8

**Tabella 10.3 – Curva di emissione sonora dell'aerogeneratore Vestas V117 3.3MW HH80m LO1**

In Figura 10.2 è illustrata la strumentazione installata in loco per la misura di verifica.

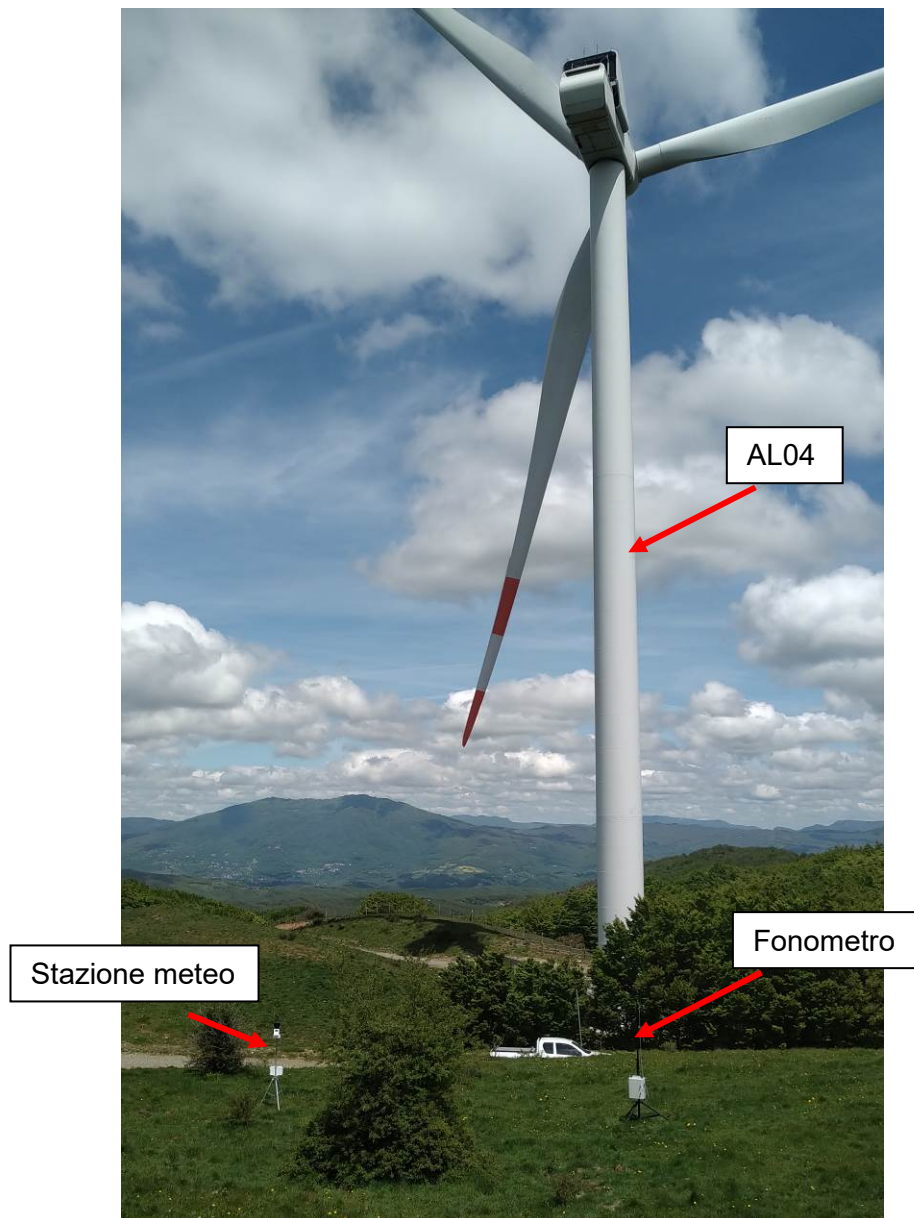
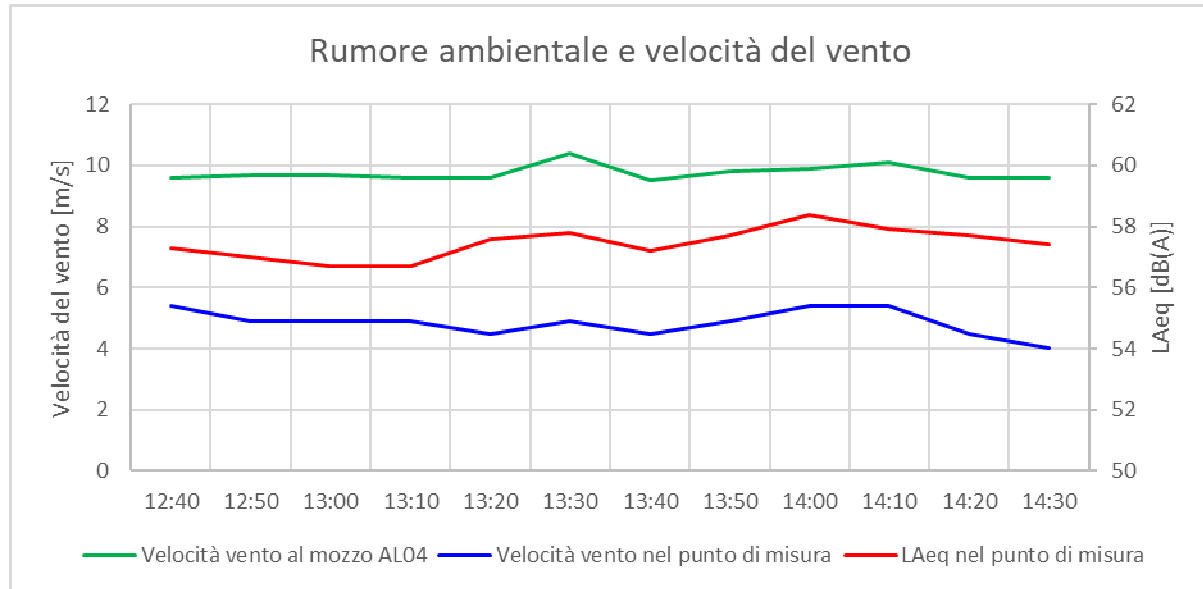


Figura 10.2 – Misura di verifica al parco eolico Fri-EI Albareto

Ore hh:mm	L <sub>Aeq</sub> dB(A)	Temp. °C	Umid. %	v <sub>r</sub> m/s	Dir.	Press. bar	Rain mm	V AL02 m/s	V AL03 m/s	V AL04 m/s	V AL05 m/s	V AL06 m/s	V AL07 m/s
12:40	57.3	11.6	67	5.4	NNE	984.9	0	8.3	8.6	9.6	9.2	8.6	9.7
12:50	57	11.3	68	4.9	NNE	985	0	8.5	8.6	9.7	8.7	7.7	8.1
13:00	56.7	11.8	66	4.9	NE	985	0	8.1	8.3	9.7	8.7	8	9.6
13:10	56.7	11.6	65	4.9	NNE	985.1	0	8.3	9.3	9.6	8.8	7.7	8.6
13:20	57.6	12.2	65	4.5	NE	985.1	0	8.2	8.6	9.6	8.4	7.2	9
13:30	57.8	11.7	63	4.9	NE	985	0	8.2	8.9	10.4	9.5	7.8	9.3
13:40	57.2	12.2	66	4.5	NNE	985	0	7.9	9.5	9.5	9.3	7.3	9.2
13:50	57.7	12.2	64	4.9	NNE	984.9	0	8	8.9	9.8	9.1	7.1	9.4
14:00	58.4	11.7	66	5.4	NNE	984.9	0	8.6	9.5	9.9	9.7	8.4	9.1
14:10	57.9	11.5	66	5.4	NNE	984.8	0	8.4	9.1	10.1	9.1	8.3	9.1
14:20	57.7	11.6	67	4.5	NNE	984.9	0	7.9	8.4	9.6	8.6	7.1	8.8
14:30	57.4	11.7	67	4	NNE	984.8	0	8	9	9.6	9.5	8.5	9.9

Tabella 10.4 – Sintesi delle misurazioni effettuate presso il parco eolico Fri-EI Albareto

In Tabella 10.4 è riportata la sintesi delle misurazioni effettuate per intervalli di 10 minuti, completa di tutti i dati meteo a corredo. Da questa si può notare che le condizioni ambientali in cui sono state svolte le misure erano ottimali per valutare la sorgente eolica: velocità del vento ai mozzì (V) comprese tra 7.0 e 10.5 m/s (da 9.6 m/s a 10.4 m/s per l'AL04), velocità del vento nel punto di misura ( $v_r$ ) comprese tra 4.0 e 5.5 m/s, temperatura, umidità e pressione sostanzialmente costanti e in linea con i valori registrati durante le misure ai ricettori descritte al paragrafo 9.



**Figura 10.3 – Andamento del  $L_{Aeq}$  nel punto di misura confrontato con quello delle velocità del vento al mozzo e nel punto di misura**

Il grafico illustrato in Figura 10.3 mostra la stretta dipendenza dell'andamento del  $L_{Aeq}$  nel punto di misura con la velocità del vento, sia misurata al mozzo dell'AL04, sia misurata nei pressi del microfono.

Si osserva inoltre che il valore medio di  $L_{Aeq}$  misurato risulta pari a **57.5 dB(A)**, la velocità media del vento nel punto di misura **4.9 m/s** e la velocità media del vento al mozzo dell'AL04 **9.8 m/s**.

Dal momento che la velocità del vento al mozzo dell'aerogeneratore AL04 è sempre risultata compresa tra 9 m/s e 11 m/s, la modellazione attraverso il software WindPro è stata condotta per il medesimo intervallo, in corrispondenza del quale la potenza sonora teorica emessa è già al massimo valore; ne è la riprova il modesto range di variabilità dell' $L_{Aeq}$  registrato.

Per il report dettagliato dei parametri numerici utilizzati nel calcolo si rimanda ai rispettivi tabulati allegati alla presente. Di seguito si riporta una sintesi dei principali valori assunti:

- $D_C = 0 \rightarrow$  correzione per direttività della sorgente
- $A_{gr} = 0 \rightarrow$  attenuazione per effetto suolo
- $A_{div} = 20\log(d/d_0)+11 \rightarrow$  attenuazione per divergenza ( $d$  = dist. sorgente-ricettore,  $d_0 = 1$  m)
- $A_{atm} = \alpha d/1000 \rightarrow$  attenuazione per assorbimento atmosferico
- $\alpha = 1.9 \rightarrow$  coefficiente di attenuazione atmosferica
- $A_{bar} = 0 \rightarrow$  attenuazione per la presenza di barriere
- $A_{misc} = 0 \rightarrow$  attenuazione per altri effetti

Gli stessi parametri saranno utilizzati per l'elaborazione del modello previsionale relativo al parco eolico in progetto; fanno eccezione i contributi di attenuazione per effetto suolo e per assorbimento atmosferico che, nel modello di "taratura" sono valutati secondo il metodo semplificato della ISO





9613-2, in quanto non è stato possibile reperire lo spettro di emissione in bande d'ottava del modello di aerogeneratore installato.

Come da calcoli indicati dettagliatamente nei tabulati in appendice, il rumore ambientale propagato al punto di misura, per tutte e tre le velocità del vento al mozzo risulta pari a **55.5 dB(A)**.

Si ritiene che la differenza di 2 dB(A) tra valore misurato e valore calcolato sia con ogni probabilità da attribuire ad un rumore residuo che, privato di quello specifico della sorgente eolica, per tali condizioni di ventosità si presuppone possa avere livelli elevati.

Nonostante, per quanto sopra osservato, si ritenga il modello definito già sufficientemente rappresentativo, nella logica della massima cautela, si opta di applicare ai valori del livello di emissione ai ricettori, calcolati col modello previsionale, un **contributo aggiuntivo di 2 dB(A)**.

### 10.3 VERIFICA DEI LIMITI NORMATIVI IN FASE DI ESERCIZIO DELL'IMPIANTO

Nel presente paragrafo vengono illustrati i risultati delle simulazioni relative al modello di propagazione definito mediante il software WindPro, secondo i parametri precedentemente definiti al paragrafo 10.2; come indicato nel medesimo paragrafo, nella simulazione di progetto i contributi di attenuazione per effetto suolo e per assorbimento atmosferico sono stati valutati col metodo completo della ISO 9613-2, avendo a disposizione gli spettri di emissione in bande d'ottava e di 1/3 d'ottava dell'aerogeneratore di progetto. Visto il contesto in cui si collocano sorgenti e ricettori è stata adottata l'ipotesi di suolo poroso sia per la zona prossima alle sorgenti, sia per quella intermedia, sia per quella prossima ai ricettori.

Ad ogni valore del livello di rumore residuo  $L_R$  è stato applicato in aggiunta o in sottrazione (a seconda della condizione più cautelativa in base alla verifica da eseguire) il valore di incertezza estesa  $U$  (2.4 dB) di cui al paragrafo 9.3, per ciascuna classe di velocità del vento al ricettore  $v_r$ .

I valori del livello di emissione ai ricettori calcolati mediante il modello WindPro, comprendono già il contributo aggiuntivo di 2 dB di cui al precedente paragrafo 10.2. Tutti i valori sono approssimati a 0.5 dB.

Di seguito in Tabella 10.5, Tabella 10.6, Tabella 10.7, Tabella 10.8, Tabella 10.9, Tabella 10.10, Tabella 10.11, Tabella 10.12, Tabella 10.13, Tabella 10.14, Tabella 10.15, Tabella 10.16, Tabella 10.17 e Tabella 10.18 si riporta una sintesi dei risultati ottenuti per ciascun ricettore nei periodi diurno e notturno. Per il dettaglio dei calcoli si rimanda all'*Allegato 01 – Modello di propagazione del rumore in fase di esercizio*.

#### Ricettore GR1.10 - Case Vighini

VERIFICA RISPETTO LIMITI ACUSTICI IN ESERCIZIO – RICETTORE GR1.10 – PERIODO DIURNO										
Classe velocità del vento $v_r$	$L_R$		$L_{WTG}$ max in esercizio	$L_{Aeq}$ totale in esercizio		Differenziale		Limite d'emissione	Limite di immissione assoluta	Limite di immissione differenziale
	max	min		max	min	min	max			
0 ÷ 1	44.0	39.5	36.0	44.5	41.0	0.5	1.5	50.0	55.0	5.0
1 ÷ 2	46.0	41.0		46.5	42.0	0.5	1.0			
2 ÷ 3	50.0	45.5		50.0	46.0	0.0	0.5			
3 ÷ 4	51.0	46.0		51.0	46.5	0.0	0.5			
4 ÷ 5	-	-		-	-	-	-			

**Tabella 10.5 - Ricettore GR1.10: verifica del rispetto dei limiti acustici in esercizio nel periodo diurno**



Pertanto risulta:

- $L_{WTG}$  max in esercizio = 36.0 dB(A)  $\leq$  50 dB(A) → **verificato**
- $L_{Aeq}$  totale max in esercizio = 51.0 dB(A)  $\leq$  55 dB(A) → **verificato**
- Differenziale =  $L_{Aeq}$  totale max in esercizio -  $L_R$  = 1.5 dB(A)  $\leq$  5 dB(A) → **verificato**

**Si noti che l' $L_{Aeq}$  massimo non è influenzato dall' $L_{WTG}$  a causa della elevata differenza tra il valore di  $L_R$  e quello di  $L_{WGT}$ .**

VERIFICA RISPETTO LIMITI ACUSTICI IN ESERCIZIO – RICETTORE GR1.10 – PERIODO NOTTURNO										
Classe velocità del vento $v_r$	$L_R$		$L_{WTG}$ max in esercizio	$L_{Aeq}$ totale in esercizio		Differenziale		Limite d'emissione	Limite di immissione assoluta	Limite di immissione differenziale
	max	min		max	min	min	max			
0 ÷ 1	40.0	35.5	36.0	41.5	39.0	1.5	3.5	40.0	45.0	3.0
1 ÷ 2	46.0	41.0		46.5	42.0	0.5	1.0			
2 ÷ 3	50.5	46.0		50.5	46.5	0.0	0.5			
3 ÷ 4	54.5	50.0		54.5	50.0	0.0	0.0			
4 ÷ 5	-	-		-	-	-	-			

**Tabella 10.6 - Ricettore GR1.10: verifica del rispetto dei limiti acustici in esercizio nel periodo notturno**

Pertanto risulta:

- $L_{WTG}$  max in esercizio = 36.0 dB(A)  $\leq$  40 dB(A) → **verificato**
- $L_{Aeq}$  totale max in esercizio = 54.5 dB(A)  $>$  45 dB(A) → **il limite risulta verificato in quanto  $L_R$  max risulta già superiore al limite di immissione assoluta e  $L_{WGT}$  non ha alcuna influenza sul  $L_{Aeq}$  totale**
- Differenziale =  $L_{Aeq}$  totale max in esercizio -  $L_R$  = 3.5 dB(A)  $>$  3.0 dB(A) → **la verifica si ritiene comunque verificata in quanto il valore di  $L_R$  minore si ottiene per classe di  $v_r$  0 ÷ 1 m/s a cui coincide una velocità ai mozz di 7.8 m/s ed un relativo  $L_{WGT}$  pari a 35.0 dB(A)**

#### Ricettore GR1.13 - Case Vighini

VERIFICA RISPETTO LIMITI ACUSTICI IN ESERCIZIO – RICETTORE GR1.13 – PERIODO DIURNO										
Classe velocità del vento $v_r$	$L_R$		$L_{WTG}$ max in esercizio	$L_{Aeq}$ totale in esercizio		Differenziale		Limite d'emissione	Limite di immissione assoluta	Limite di immissione differenziale
	max	min		max	min	min	max			
0 ÷ 1	44.0	39.5	36.2	44.5	41.0	0.5	1.5	55.0	60.0	5.0
1 ÷ 2	46.0	41.0		46.5	42.0	0.5	1.0			
2 ÷ 3	50.0	45.5		50.0	46.0	0.0	0.5			
3 ÷ 4	51.0	46.0		51.0	46.5	0.0	0.5			
4 ÷ 5	-	-		-	-	-	-			

**Tabella 10.7 - Ricettore GR1.13: verifica del rispetto dei limiti acustici in esercizio nel periodo diurno**



Pertanto risulta:

- $L_{WTG}$  max in esercizio = 36.2 dB(A)  $\leq$  55 dB(A) → **verificato**
- $L_{Aeq}$  totale max in esercizio = 51.0 dB(A)  $\leq$  60 dB(A) → **verificato**
- Differenziale =  $L_{Aeq}$  totale max in esercizio -  $L_R$  = 1.5 dB(A)  $\leq$  5 dB(A) → **verificato**

**Si noti che l' $L_{Aeq}$  massimo non è influenzato dall' $L_{WTG}$  a causa della elevata differenza tra il valore di  $L_R$  e quello di  $L_{WGT}$ .**

VERIFICA RISPETTO LIMITI ACUSTICI IN ESERCIZIO – RICETTORE GR1.13 – PERIODO NOTTURNO										
Classe velocità del vento $v_r$	$L_R$		$L_{WTG}$ max in esercizio	$L_{Aeq}$ totale in esercizio		Differenziale		Limite d'emissione	Limite di immissione assoluta	Limite di immissione differenziale
	max	min		max	min	min	max			
0 ÷ 1	40.0	35.5	36.2	41.5	39.0	1.5	3.5	45.0	50.0	3.0
1 ÷ 2	46.0	41.0		46.5	42.0	0.5	1.0			
2 ÷ 3	50.5	46.0		50.5	46.5	0.0	0.5			
3 ÷ 4	54.5	50.0		54.5	50.0	0.0	0.0			
4 ÷ 5	-	-		-	-	-	-			

**Tabella 10.8 - Ricettore GR1.13: verifica del rispetto dei limiti acustici in esercizio nel periodo notturno**

Pertanto risulta:

- $L_{WTG}$  max in esercizio = 36.2 dB(A)  $\leq$  45 dB(A) → **verificato**
- $L_{Aeq}$  totale max in esercizio = 54.5 dB(A)  $>$  50 dB(A) → **la verifica risulta soddisfatta in quanto  $L_R$  max risulta già superiore al limite di immissione assoluta e  $L_{WGT}$  non ha alcuna influenza sul  $L_{Aeq}$  totale**
- Differenziale =  $L_{Aeq}$  totale max in esercizio -  $L_R$  = 3.5 dB(A)  $>$  3.0 dB(A) → **la verifica si ritiene comunque soddisfatta in quanto il valore di  $L_R$  minore si ottiene per classe di  $v_r$  0 ÷ 1 m/s a cui coincide una velocità ai mozz di 7.8 m/s ed un relativo  $L_{WGT}$  pari a 35.3 dB(A)**

#### Ricettore GR2.101 - Valdena

VERIFICA RISPETTO LIMITI ACUSTICI IN ESERCIZIO – RICETTORE GR2.101 – PERIODO DIURNO										
Classe velocità del vento $v_r$	$L_R$		$L_{WTG}$ max in esercizio	$L_{Aeq}$ totale in esercizio		Differenziale		Limite d'emissione	Limite di immissione assoluta	Limite di immissione differenziale
	max	min		max	min	min	max			
0 ÷ 1	49.5	44.5	22.7	49.5	44.5	0.0	0.0	50.0	55.0	5.0
1 ÷ 2	48.5	43.5		48.5	43.5	0.0	0.0			
2 ÷ 3	49.5	44.5		49.5	44.5	0.0	0.0			
3 ÷ 4	-	-		-	-	-	-			
4 ÷ 5	-	-		-	-	-	-			

**Tabella 10.9 - Ricettore GR2.101: verifica del rispetto dei limiti acustici in esercizio nel periodo diurno**

Pertanto risulta:



- $L_{WTG}$  max in esercizio = 22.7 dB(A)  $\leq$  50 dB(A) → **verificato**
  - $L_{Aeq}$  totale max in esercizio = 49.5 dB(A)  $\leq$  55 dB(A) → **verificato**
  - Differenziale =  $L_{Aeq}$  totale max in esercizio -  $L_R$  = 0.0 dB(A)  $\leq$  5 dB(A) → **verificato**
- Si noti che l' $L_{Aeq}$  non è influenzato dall' $L_{WTG}$  a causa della elevata differenza tra il valore di  $L_R$  e quello di  $L_{WTG}$ .**

VERIFICA RISPETTO LIMITI ACUSTICI IN ESERCIZIO – RICETTORE GR2.101 – PERIODO DIURNO										
Classe velocità del vento $v_r$	$L_R$		$L_{WTG}$ max in esercizio	$L_{Aeq}$ totale in esercizio		Differenziale		Limite d'emissione	Limite di immissione assoluta	Limite di immissione differenziale
	max	min		max	min	min	max			
0 ÷ 1	44.5	39.5	22.7	44.5	39.5	0.0	0.0	40.0	45.0	3.0
1 ÷ 2	52.5	48.0		52.5	48.0	0.0	0.0			
2 ÷ 3	-	-		-	-	-	-			
3 ÷ 4	-	-		-	-	-	-			
4 ÷ 5	-	-		-	-	-	-			

**Tabella 10.10 - Ricettore GR2.101: verifica del rispetto dei limiti acustici in esercizio nel periodo notturno**

Pertanto risulta:

- $L_{WTG}$  max in esercizio = 22.7 dB(A)  $\leq$  40 dB(A) → **verificato**
- $L_{Aeq}$  totale max in esercizio = 52.5 dB(A)  $>$  45 dB(A) → **la verifica risulta soddisfatta in quanto  $L_R$  max risulta già superiore al limite di immissione assoluta e  $L_{WTG}$  non ha alcuna influenza sul  $L_{Aeq}$  totale**
- Differenziale =  $L_{Aeq}$  totale max in esercizio -  $L_R$  = 0.0 dB(A)  $\leq$  3.0 dB(A) → **verificato**

**Si noti che l' $L_{Aeq}$  non è influenzato dall' $L_{WTG}$  a causa della elevata differenza tra il valore di  $L_R$  e quello di  $L_{WTG}$ .**

#### Ricettore GR2.128 - Valdena

VERIFICA RISPETTO LIMITI ACUSTICI IN ESERCIZIO – RICETTORE GR2.128 – PERIODO DIURNO										
Classe velocità del vento $v_r$	$L_R$		$L_{WTG}$ max in esercizio	$L_{Aeq}$ totale in esercizio		Differenziale		Limite d'emissione	Limite di immissione assoluta	Limite di immissione differenziale
	max	min		max	min	min	max			
0 ÷ 1	49.5	44.5	24.5	49.5	44.5	0.0	0.0	55.0	60.0	5.0
1 ÷ 2	48.5	43.5		48.5	43.5	0.0	0.0			
2 ÷ 3	49.5	44.5		49.5	44.5	0.0	0.0			
3 ÷ 4	-	-		-	-	-	-			
4 ÷ 5	-	-		-	-	-	-			

**Tabella 10.11 - Ricettore GR2.128: verifica del rispetto dei limiti acustici in esercizio nel periodo diurno**

Pertanto risulta:





- $L_{WTG}$  max in esercizio = 24.5 dB(A)  $\leq$  55 dB(A) → **verificato**
- $L_{Aeq}$  totale max in esercizio = 49.5 dB(A)  $\leq$  60 dB(A) → **verificato**
- Differenziale =  $L_{Aeq}$  totale max in esercizio -  $L_R$  = 0.0 dB(A)  $\leq$  5 dB(A) → **verificato**

Si noti che l' $L_{Aeq}$  non è influenzato dall' $L_{WTG}$  a causa della elevata differenza tra il valore di  $L_R$  e quello di  $L_{WGT}$ .

VERIFICA RISPETTO LIMITI ACUSTICI IN ESERCIZIO – RICETTORE GR2.128 – PERIODO DIURNO										
Classe velocità del vento $v_r$	$L_R$		$L_{WTG}$ max in esercizio	$L_{Aeq}$ totale in esercizio		Differenziale		Limite d'emissione	Limite di immissione assoluta	Limite di immissione differenziale
	max	min		max	min	min	max			
0 ÷ 1	44.5	39.5	24.5	44.5	39.5	0.0	0.0	45.0	50.0	3.0
1 ÷ 2	52.5	48.0		52.5	48.0	0.0	0.0			
2 ÷ 3	-	-		-	-	-	-			
3 ÷ 4	-	-		-	-	-	-			
4 ÷ 5	-	-		-	-	-	-			

Tabella 10.12 - Ricettore GR2.128: verifica del rispetto dei limiti acustici in esercizio nel periodo notturno

Pertanto risulta:

- $L_{WTG}$  max in esercizio = 24.5 dB(A)  $\leq$  45 dB(A) → **verificato**
- $L_{Aeq}$  totale max in esercizio = 52.5 dB(A)  $>$  50 dB(A) → **la verifica risulta soddisfatta in quanto  $L_R$  max risulta già superiore al limite di immissione assoluta e  $L_{WGT}$  non ha alcuna influenza sul  $L_{Aeq}$  totale**
- Differenziale =  $L_{Aeq}$  totale max in esercizio -  $L_R$  = 0.0 dB(A)  $\leq$  3.0 dB(A) → **verificato**

Si noti che l' $L_{Aeq}$  non è influenzato dall' $L_{WTG}$  a causa della elevata differenza tra il valore di  $L_R$  e quello di  $L_{WGT}$ .

#### Ricettore GR3.334 – Passo del Brattello

VERIFICA RISPETTO LIMITI ACUSTICI IN ESERCIZIO – RICETTORE GR3.334 – PERIODO DIURNO										
Classe velocità del vento $v_r$	$L_R$		$L_{WTG}$ max in esercizio	$L_{Aeq}$ totale in esercizio		Differenziale		Limite d'emissione	Limite di immissione assoluta	Limite di immissione differenziale
	max	min		max	min	min	max			
0 ÷ 1	45.5	41.0	32.9	45.5	41.5	0.0	0.5	55.0	60.0	5.0
1 ÷ 2	47.5	42.5		47.5	43.0	0.0	0.5			
2 ÷ 3	48.5	43.5		48.5	44.0	0.0	0.5			
3 ÷ 4	50.5	46.0		50.5	46.0	0.0	0.0			
4 ÷ 5	-	-		-	-	-	-			

Tabella 10.13 - Ricettore GR3.334: verifica del rispetto dei limiti acustici in esercizio nel periodo diurno

Pertanto risulta:



- $L_{WTG}$  max in esercizio = 32.9 dB(A)  $\leq$  55 dB(A) → **verificato**
- $L_{Aeq}$  totale max in esercizio = 50.5 dB(A)  $\leq$  60 dB(A) → **verificato**
- Differenziale =  $L_{Aeq}$  totale max in esercizio -  $L_R$  = 0.5 dB(A)  $\leq$  5 dB(A) → **verificato**

Si noti che l' $L_{Aeq}$  massimo non è influenzato dall' $L_{WTG}$  a causa della elevata differenza tra il valore di  $L_R$  e quello di  $L_{WTG}$ .

VERIFICA RISPETTO LIMITI ACUSTICI IN ESERCIZIO – RICETTORE GR3.334 – PERIODO NOTTURNO										
Classe velocità del vento $v_r$	$L_R$		$L_{WTG}$ max in esercizio	$L_{Aeq}$ totale in esercizio		Differenziale		Limite d'emissione	Limite di immissione assoluta	Limite di immissione differenziale
	max	min		max	min	min	max			
0 ÷ 1	45.0	40.5	32.9	45.5	41.0	0.5	0.5	45.0	50.0	3.0
1 ÷ 2	44.5	40.0		45.0	41.0	0.5	1.0			
2 ÷ 3	-	-		-	-	-	-			
3 ÷ 4	-	-		-	-	-	-			
4 ÷ 5	-	-		-	-	-	-			

**Tabella 10.14 - Ricettore GR3.334: verifica del rispetto dei limiti acustici in esercizio nel periodo notturno**

Pertanto risulta:

- $L_{WTG}$  max in esercizio = 32.9 dB(A)  $\leq$  40 dB(A) → **verificato**
- $L_{Aeq}$  totale max in esercizio = 45.5 dB(A)  $\leq$  50 dB(A) → **verificato**
- Differenziale =  $L_{Aeq}$  totale max in esercizio -  $L_R$  = 1.0 dB(A)  $\leq$  3.0 dB(A) → **verificato**

#### Ricettore GR3.336 – Passo del Brattello

VERIFICA RISPETTO LIMITI ACUSTICI IN ESERCIZIO – RICETTORE GR3.336 – PERIODO DIURNO										
Classe velocità del vento $v_r$	$L_R$		$L_{WTG}$ max in esercizio	$L_{Aeq}$ totale in esercizio		Differenziale		Limite d'emissione	Limite di immissione assoluta	Limite di immissione differenziale
	max	min		max	min	min	max			
0 ÷ 1	45.5	41.0	31.8	45.5	41.5	0.0	0.5	50.0	55.0	5.0
1 ÷ 2	47.5	42.5		47.5	43.0	0.0	0.5			
2 ÷ 3	48.5	43.5		48.5	44.0	0.0	0.5			
3 ÷ 4	50.5	46.0		50.5	46.0	0.0	0.0			
4 ÷ 5	-	-		-	-	-	-			

**Tabella 10.15 - Ricettore GR3.336: verifica del rispetto dei limiti acustici in esercizio nel periodo diurno**

Pertanto risulta:

- $L_{WTG}$  max in esercizio = 31.8 dB(A)  $\leq$  50 dB(A) → **verificato**
- $L_{Aeq}$  totale max in esercizio = 50.5 dB(A)  $\leq$  55 dB(A) → **verificato**
- Differenziale =  $L_{Aeq}$  totale max in esercizio -  $L_R$  = 0.5 dB(A)  $\leq$  5 dB(A) → **verificato**



Si noti che l' $L_{Aeq}$  massimo non è influenzato dall' $L_{WTG}$  a causa della elevata differenza tra il valore di  $L_R$  e quello di  $L_{WTG}$ .

VERIFICA RISPETTO LIMITI ACUSTICI IN ESERCIZIO – RICETTORE GR3.336 – PERIODO NOTTURNO										
Classe velocità del vento $v_r$	$L_R$		$L_{WTG}$ max in esercizio	$L_{Aeq}$ totale in esercizio		Differenziale		Limite d'emissione	Limite di immissione assoluta	Limite di immissione differenziale
	max	min		max	min	min	max			
0 ÷ 1	45.0	40.5	31.8	45.0	41	0.0	0.5	40.0	45.0	3.0
1 ÷ 2	44.5	40.0		44.5	40.5	0.0	0.5			
2 ÷ 3	-	-		-	-	-	-			
3 ÷ 4	-	-		-	-	-	-			
4 ÷ 5	-	-		-	-	-	-			

Tabella 10.16 - Ricettore GR3.336: verifica del rispetto dei limiti acustici in esercizio nel periodo notturno

Pertanto risulta:

- $L_{WTG}$  max in esercizio = 31.8 dB(A) ≤ 40 dB(A) → **verificato**
- $L_{Aeq}$  totale max in esercizio = 44.5 dB(A) ≤ 45 dB(A) → **verificato**
- Differenziale =  $L_{Aeq}$  totale max in esercizio -  $L_R$  = 0.5 dB(A) ≤ 3.0 dB(A) → **verificato**

#### Ricettore GR4.343 – Bratto

VERIFICA RISPETTO LIMITI ACUSTICI IN ESERCIZIO – RICETTORE GR4.343 – PERIODO DIURNO										
Classe velocità del vento $v_r$	$L_R$		$L_{WTG}$ max in esercizio	$L_{Aeq}$ totale in esercizio		Differenziale		Limite d'emissione	Limite di immissione assoluta	Limite di immissione differenziale
	max	min		max	min	min	max			
0 ÷ 1	44.5	39.5	27.4	44.5	40.0	0.0	0.5	55.0	60.0	5.0
1 ÷ 2	42.5	37.5		42.5	38.0	0.0	0.5			
2 ÷ 3	-	-		-	-	-	-			
3 ÷ 4	-	-		-	-	-	-			
4 ÷ 5	-	-		-	-	-	-			

Tabella 10.17 - Ricettore GR4.343: verifica del rispetto dei limiti acustici in esercizio nel periodo diurno

Pertanto risulta:

- $L_{WTG}$  max in esercizio = 27.4 dB(A) ≤ 55 dB(A) → **verificato**
- $L_{Aeq}$  totale max in esercizio = 44.5 dB(A) ≤ 60 dB(A) → **verificato**
- Differenziale =  $L_{Aeq}$  totale max in esercizio -  $L_R$  = 0.5 dB(A) ≤ 5 dB(A) → **verificato**

Si noti che l' $L_{Aeq}$  massimo non è influenzato dall' $L_{WTG}$  a causa della elevata differenza tra il valore di  $L_R$  e quello di  $L_{WTG}$ .



VERIFICA RISPETTO LIMITI ACUSTICI IN ESERCIZIO – RICETTORE GR4.343 – PERIODO DIURNO										
Classe velocità del vento $v_r$	$L_R$		$L_{WTG}$ max in esercizio	$L_{Aeq}$ totale in esercizio		Differenziale		Limite d'emissione	Limite di immissione assoluta	Limite di immissione differenziale
	max	min		max	min	min	max			
0 ÷ 1	41.5	36.5	27.4	41.5	37.0	0.0	0.5	45.0	50.0	3.0
1 ÷ 2	36.0	31.0		36.5	32.5	0.5	1.5			
2 ÷ 3	-	-		-	-	-	-			
3 ÷ 4	-	-		-	-	-	-			
4 ÷ 5	-	-		-	-	-	-			

Tabella 10.18 - Ricettore GR4.343: verifica del rispetto dei limiti acustici in esercizio nel periodo notturno

Pertanto risulta:

- $L_{WTG}$  max in esercizio = 27.4 dB(A)  $\leq$  45 dB(A) → **verificato**
- $L_{Aeq}$  totale max in esercizio = 41.5 dB(A)  $\leq$  50 dB(A) → **verificato**
- Differenziale =  $L_{Aeq}$  totale max in esercizio -  $L_R$  = 1.5 dB(A)  $\leq$  3.0 dB(A) → **verificato**

Si noti che l' $L_{Aeq}$  non è influenzato dall' $L_{WTG}$  a causa della elevata differenza tra il valore di  $L_R$  e quello di  $L_{WTG}$ .

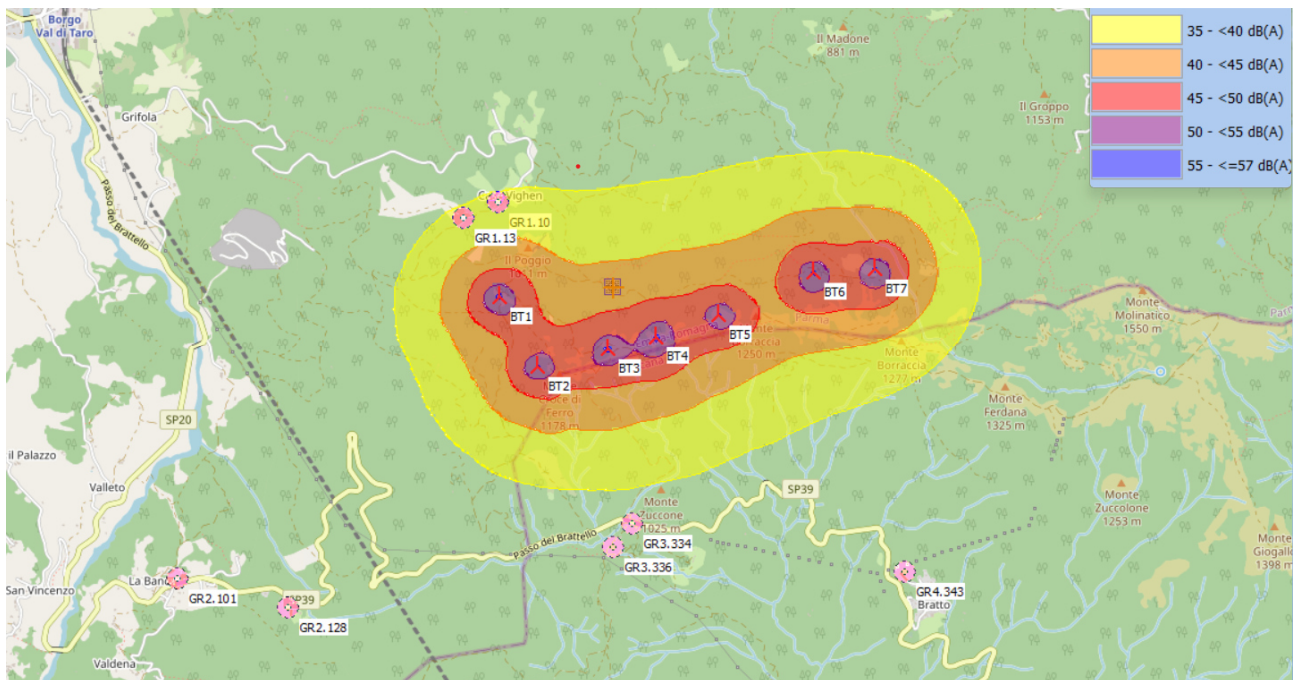


Figura 10.4 - Livelli di pressione sonora  $L_{WTG}$  massimi in fase di esercizio





## 11 CONCLUSIONI

Il presente studio di impatto acustico rappresenta l'adeguamento del precedente studio al Decreto 1 giugno 2022 del Ministero della Transizione Ecologica – *“Determinazione dei criteri per la misurazione del rumore emesso dagli impianti eolici e per il contenimento del relativo inquinamento acustico”*, al fine rispondere alle richieste di integrazione di cui alle note prot. 203102/2022 trasmessa in data 12/12/2022 e prot. 205606/2022 trasmessa in data 15/12/2022 da parte di ARPAE Servizio Autorizzazioni e Concessioni di Parma, con riferimento al paragrafo “E. Rumore” (sottoparagrafi da E.1 a E.7, punti da 12 a 19).

Lo studio prende inoltre in esame le richieste avanzate dalla Regione Toscana – Direzione Ambientale ed Energia con nota del 20/10/2022 prot. 399616, con esclusivo riferimento all'allegata nota di ARPAT del 14/10/2022 prot. 0391675.

Il presente elaborato è stato altresì redatto tenendo in considerazione le modifiche progettuali introdotte rispetto alla proposta progettuale iniziale sottoposta ad iter procedurale di PAUR e che sono meglio descritte nell'elaborato RI-R.0 nelle premesse.

Il presente studio riguarda unicamente l'impatto acustico legato all'impianto eolico nella fase di esercizio, in quanto per la fase di cantiere né ARPAE, né ARPAT hanno avanzato richieste di ulteriori approfondimenti.

Come richiesto da ARPAE e ARPAT ed in ottemperanza al D.M. 1 giugno 2022, è stata svolta una campagna di misure di lunga durata (minimo 24 ore) in corrispondenza di quattro gruppi di ricettori considerati maggiormente rilevanti dal punto di vista degli impatti attesi, tra cui gli abitati di Case Vighini e Valderna in territorio emiliano (Comune di Borgo Val di Taro, PR) e gli abitati del Passo del Brattello e Bratto (Comune di Pontremoli, MS).

Alle misure fonometriche sono state affiancate misure dei principali parametri meteorologici in modo tale da poter elaborare i dati secondo le modalità dettate dal D.M. 1 giugno 2022. Ai dati meteo in corrispondenza dei ricettori sono stati affiancati i dati anemometrici misurati nella zona in cui è prevista la collocazione delle turbine eoliche; tali dati sono stati registrati con strumentazione Sodar e sono riferiti all'altezza mozzo più vicina a quella minima di progetto.

L'elaborazione dei dati secondo le indicazioni dell'Allegato 2 del D.M. 1 giugno 2022 hanno permesso di ottenere i livelli di rumore residuo  $L_R$  per diverse classi di velocità del vento, in corrispondenza dei ricettori, per i periodi diurno e notturno. Questi sono poi stati combinati con l'incertezza di misura calcolata secondo la norma UNI/TR 11326:2009.

La propagazione del rumore specifico della sorgente eolica è stata valutata secondo la norma ISO 9613-2 mediante l'utilizzo del software windPRO v. 3.6.366; i parametri scelti per la modellazione sono stati verificati attraverso l'analisi parallela tra una misura campione, eseguita presso il parco eolico Fri-El Albareto (presso il Passo Cento Croci) ed il relativo modello teorico. Nonostante si siano ritenuti i dati della modellazione in linea con quelli misurati, nella logica della massima cautela si è optato per applicare un contributo di 2 dB in aumento sul livello totale di emissione della sorgente eolica al ricettore ( $L_{WTG}$ ).

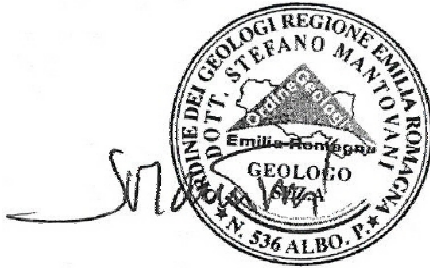
Le analisi svolte mostrano come i limiti dettati dalla normativa (D.P.C.M. 14 novembre 1997) siano pienamente rispettati. Si segnala come unica criticità la comunque improbabile eventualità di superamento dei limiti differenziali notturni per il solo abitato di Case Vighini, qualora si verificasse la condizione di moderato livello di rumore residuo al ricettore in concomitanza con un'elevata ventosità e conseguente massima potenza sonora emessa in corrispondenza degli aerogeneratori. Le misurazioni svolte mostrano tuttavia una connessione abbastanza evidente tra ventosità della zona in prossimità delle sorgenti e di quella prossima ai ricettori, in particolar modo con i due di



essi a distanza minore (Case Vighini e Passo del Brattello). Per questo si ritiene la concomitanza tra livelli modesti di  $L_R$  e livelli elevati  $L_{WTG}$  un'eventualità poco probabile e comunque certamente non tipica.

Parma, venerdì 2 giugno 2023

Stefano Mantovani



Giulio Bartoli



*Giulio Bartoli*

- APPENDICE A – Elaborazione delle misure secondo il D.M. 1 giugno 2022, Allegato 2
- APPENDICE B – Tabulati di calcolo: modello di propagazione del rumore di “taratura” relativo al Parco Eolico di Fri-El Albareto S.r.l.
- APPENDICE C – Tabulati di calcolo: modello di propagazione del rumore in fase di esercizio dell’impianto in progetto
- APPENDICE D – Certificati di taratura della strumentazione fonometrica utilizzata



# APPENDICE A

*Elaborazione delle misure secondo il D.M. 1 giugno 2022, Allegato 2*

**TABELLA 2**  
**Livello di rumore residuo - Periodo Diurno**

Data	Ore	Durata effettiva intervallo	L <sub>R</sub>	v <sub>r</sub>	V	θ	Temp.	Umid.	Press.
[gg/mm/aaaa]	[hh:mm]	[hh:mm:ss]	[dB(A)]	[m/s]	[m/s]	[°]	[°C]	[%]	[Bar]
27/04/2023	12:00	00:09:15	43.7	0.9	5.29	132.00	15.8	28	1010.7
27/04/2023	12:10	00:09:45	42.8	1.3	5.28	129.77	15.9	30	1010.6
27/04/2023	12:20	00:10:00	36.1	1.3	5.20	141.83	15.7	30	1010.7
27/04/2023	12:30	00:10:00	38.9	1.3	5.61	133.78	15.8	33	1010.7
27/04/2023	12:40	00:09:58	40.2	1.3	5.51	135.17	16.1	35	1010.3
27/04/2023	12:50	00:09:22	41.9	1.3	6.00	134.72	16.2	35	1010.5
27/04/2023	13:00	00:09:31	39.5	1.3	6.08	136.95	16.1	34	1010.5
27/04/2023	13:10	00:09:51	39.1	1.3	6.27	128.47	16.2	34	1010.4
27/04/2023	13:20	00:10:00	40.2	1.3	7.07	136.23	16.1	34	1010.4
27/04/2023	13:30	00:09:29	41.3	1.3	7.42	139.27	16.2	34	1010.4
27/04/2023	13:40	00:09:34	39.1	1.3	6.52	137.52	15.9	35	1010.5
27/04/2023	13:50	00:10:00	38.7	0.9	6.12	138.16	16.4	34	1010.5
27/04/2023	14:00	00:10:00	41.9	1.3	5.99	140.92	16.8	34	1010.4
27/04/2023	14:10	00:09:34	39.9	1.3	6.59	142.44	16.8	35	1010.5
27/04/2023	14:20	00:09:43	41	1.8	6.58	139.88	16.4	34	1010.4
27/04/2023	14:30	00:10:00	42.8	1.8	7.04	141.78	16.7	35	1010.4
27/04/2023	14:40	00:10:00	43.1	1.3	7.04	141.15	16.8	35	1010.3
27/04/2023	14:50	00:09:23	46.5	1.8	6.75	140.53	16.6	34	1010.3
27/04/2023	15:00	00:09:24	42.3	1.8	7.02	139.87	16.6	38	1010.3
27/04/2023	15:10	00:10:00	42.7	1.8	7.29	138.30	16.8	37	1010.1
27/04/2023	15:20	00:10:00	43.4	1.8	7.07	140.77	16.8	35	1010.4
27/04/2023	15:30	00:10:00	43.9	2.2	7.03	139.05	16.8	36	1010.4
27/04/2023	15:40	00:09:31	42.2	2.2	6.96	144.97	16.3	37	1010.3
27/04/2023	15:50	00:09:19	44	1.3	6.74	142.11	16.2	40	1010.4
27/04/2023	16:00	00:10:00	42.1	1.3	6.95	142.72	15.8	40	1010.3
27/04/2023	16:10	00:09:04	43.1	0.9	7.03	136.52	15.7	39	1010.3
27/04/2023	16:20	00:10:00	44.2	1.3	7.05	145.64	15.4	37	1010.4
27/04/2023	16:30	00:08:13	40.6	2.2	7.09	143.47	15.1	36	1010.3
27/04/2023	16:40	00:07:50	43.5	1.3	7.15	136.16	15.1	40	1010.4
27/04/2023	16:50	00:09:54	43.6	2.2	7.26	138.02	14.8	40	1010.4
27/04/2023	17:00	00:10:00	44.1	1.3	7.67	136.87	15.1	40	1010.4
27/04/2023	17:10	00:08:08	43.6	1.3	7.56	136.24	15.2	37	1010.4
27/04/2023	17:20	00:07:57	44.7	1.8	7.37	133.51	15	39	1010.4
27/04/2023	17:30	00:09:27	42.4	1.3	7.41	134.27	15	41	1010.4
27/04/2023	17:40	00:09:42	41.2	1.3	7.40	133.30	15	41	1010.2
27/04/2023	17:50	00:09:44	40	0.9	7.09	131.47	15	46	1010.2
27/04/2023	18:00	00:10:00	40.4	0.9	7.20	131.36	14.7	47	1010
27/04/2023	18:10	00:09:41	35.5	0.9	7.11	129.99	14.6	48	1010
27/04/2023	18:20	00:10:00	38.7	0.9	6.96	132.92	14.2	48	1010.2
27/04/2023	18:30	00:09:43	35.5	0.9	7.31	131.87	13.9	50	1010.2
27/04/2023	18:40	00:09:11	36.4	0.9	6.81	133.11	13.6	51	1010.3
27/04/2023	18:50	00:09:48	41.2	0.9	7.06	133.76	13.6	51	1010.2
27/04/2023	19:00	00:09:52	40.6	0.9	7.23	133.87	13.4	50	1010.2
27/04/2023	19:10	00:10:00	38.1	0.9	6.56	132.27	13.2	51	1010.2
27/04/2023	19:20	00:07:45	38.5	0.9	4.70	130.08	12.9	52	1010.3
27/04/2023	19:30	00:09:23	36.5	0.9	7.18	128.30	12.6	53	1010.4
27/04/2023	19:40	00:10:00	35.5	0.9	4.85	124.18	12.3	53	1010.4
27/04/2023	19:50	00:09:23	35.8	0.9	7.84	127.23	12	55	1010.4
27/04/2023	20:00	00:10:00	34.3	1.3	7.34	126.48	11.7	55	1010.4
27/04/2023	20:10	00:10:00	36.1	0.9	5.44	127.64	11.6	55	1010.4
27/04/2023	20:20	00:10:00	36	0.9	6.76	129.13	11.3	55	1010.4
27/04/2023	20:30	00:10:00	34.5	1.3	7.44	128.95	11.2	55	1010.3
27/04/2023	20:40	00:10:00	33.6	0.9	7.46	132.17	11.1	55	1010.6



**TABELLA 2**  
**Livello di rumore residuo - Periodo Diurno**

Data	Ore	Durata effettiva intervallo	L <sub>R</sub>	v <sub>r</sub>	V	θ	Temp.	Umid.	Press.
[gg/mm/aaaa]	[hh:mm]	[hh:mm:ss]	[dB(A)]	[m/s]	[m/s]	[°]	[°C]	[%]	[Bar]
27/04/2023	20:50	00:10:00	35.4	0.9	7.20	133.31	11.1	55	1010.6
27/04/2023	21:00	00:10:00	34.6	0.9	7.67	133.31	11.1	53	1010.6
27/04/2023	21:10	00:10:00	32.9	0.9	8.05	133.40	11.1	50	1010.6
27/04/2023	21:20	00:10:00	36.7	0.4	8.03	130.96	11	48	1010.7
27/04/2023	21:30	00:10:00	33.8	0.9	8.25	130.98	11.1	45	1010.9
27/04/2023	21:40	00:10:00	33.9	0.4	8.15	134.10	11.1	45	1011.1
27/04/2023	21:50	00:10:00	33.5	0.9	8.22	131.34	11	44	1011.3
28/04/2023	06:00	00:08:30	42.2	0.4	8.52	140.09	10.2	53	1011.1
28/04/2023	06:10	00:08:46	41.6	0	8.48	138.85	10.1	52	1011
28/04/2023	06:20	00:08:35	42.3	0.4	8.55	138.56	10.1	54	1011.1
28/04/2023	06:30	00:09:14	42.1	0.4	8.44	139.37	10.1	55	1011.2
28/04/2023	06:40	00:10:00	42.4	0	9.14	139.80	10	55	1011.4
28/04/2023	06:50	00:10:00	42.9	0.4	9.05	142.47	10.2	55	1011.6
28/04/2023	07:00	00:08:59	43.7	0.4	8.73	139.75	10.6	54	1011.6
28/04/2023	07:10	00:10:00	42	0.4	9.28	142.02	10.7	54	1011.7
28/04/2023	07:20	00:10:00	41.8	0.4	9.64	140.97	10.7	53	1011.8
28/04/2023	07:30	00:10:00	42.9	0.4	9.94	139.94	11.1	52	1011.8
28/04/2023	07:40	00:09:44	42.3	0.4	9.79	141.07	11.3	52	1011.7
28/04/2023	07:50	00:10:00	41.2	0.9	9.48	145.86	11.3	52	1011.7
28/04/2023	08:00	00:10:00	41.9	0.9	9.57	147.24	11.5	53	1011.7
28/04/2023	08:10	00:10:00	42.4	0.9	9.18	149.53	12.2	52	1011.6
28/04/2023	08:20	00:10:00	41.1	0.9	8.84	145.20	12.2	51	1011.6
28/04/2023	08:30	00:10:00	41.7	1.3	8.81	143.59	12.3	51	1011.8
28/04/2023	08:40	00:09:19	42.3	0.9	9.34	144.64	12.2	51	1011.7
28/04/2023	08:50	00:09:56	43.8	0.9	9.54	143.67	12.1	52	1011.8
28/04/2023	09:00	00:10:00	41.9	1.3	9.37	141.94	12.1	54	1011.8
28/04/2023	09:10	00:09:26	44.2	0.9	9.58	141.96	11.9	54	1011.7
28/04/2023	09:20	00:09:53	43.2	1.3	8.50	141.20	12.1	52	1011.6
28/04/2023	09:30	00:09:10	44.3	1.3	8.22	139.39	12.6	52	1011.4
28/04/2023	09:40	00:09:51	43.1	1.3	8.43	144.41	13	52	1011.8
28/04/2023	09:50	00:09:47	42.4	1.3	8.06	138.10	13.4	51	1011.8
28/04/2023	10:00	00:09:37	43.2	0.9	7.98	140.23	13.8	49	1011.7
28/04/2023	10:10	00:09:52	42.4	1.3	9.06	139.03	14.1	50	1011.7
28/04/2023	10:20	00:10:00	43	1.3	9.18	138.56	14.1	50	1011.9
28/04/2023	10:30	00:09:55	45.4	1.3	9.92	141.67	14	51	1011.7
28/04/2023	10:40	00:10:00	44.9	1.8	9.94	141.83	13.7	50	1011.8
28/04/2023	10:50	00:10:00	45.6	1.3	8.96	140.76	13.8	49	1011.8
28/04/2023	11:00	00:10:00	44.5	2.2	8.22	143.13	13.9	49	1011.8
28/04/2023	11:10	00:08:35	43.9	2.2	8.74	141.39	13.8	49	1012
28/04/2023	11:20	00:08:06	45.4	1.8	8.93	144.26	14.1	48	1011.9
28/04/2023	11:30	00:09:11	45.3	1.8	8.59	144.73	14.2	52	1012.1
28/04/2023	11:40	00:09:55	46.5	1.8	8.69	141.48	14.4	50	1012.1
28/04/2023	11:50	00:10:00	47	1.8	9.66	145.72	14.4	53	1012.2
28/04/2023	12:00	00:09:49	42.7	2.2	9.35	142.04	14.2	54	1012
28/04/2023	12:10	00:09:47	44.6	1.8	9.69	146.45	14.5	56	1012
28/04/2023	12:20	00:10:00	44.5	2.2	10.01	142.64	14.4	54	1011.9
28/04/2023	12:30	00:09:20	44.3	2.2	10.17	142.38	14.7	55	1011.8
28/04/2023	12:40	00:09:36	43.9	1.8	10.13	142.93	14.7	55	1011.7
28/04/2023	12:50	00:10:00	47.1	1.8	10.03	145.55	14.7	57	1011.9
28/04/2023	13:00	00:09:49	44.6	2.7	9.98	142.75	14.2	58	1011.7
28/04/2023	13:10	00:09:48	45.8	1.8	9.79	143.55	14.7	59	1011.6
28/04/2023	13:20	00:09:53	45.5	1.8	9.73	142.63	14.9	56	1011.6
28/04/2023	13:30	00:09:06	42.7	2.2	9.95	141.40	15.1	56	1011.6

**TABELLA 2**  
**Livello di rumore residuo - Periodo Diurno**

Data	Ore	Durata effettiva intervallo	L <sub>R</sub>	v <sub>r</sub>	V	θ	Temp.	Umid.	Press.
[gg/mm/aaaa]	[hh:mm]	[hh:mm:ss]	[dB(A)]	[m/s]	[m/s]	[°]	[°C]	[%]	[Bar]
28/04/2023	13:40	00:10:00	44.4	1.8	9.67	145.97	14.9	56	1011.7
28/04/2023	13:50	00:09:31	40.9	2.2	9.53	146.83	15.1	57	1011.4
28/04/2023	14:00	00:09:54	43.4	1.3	9.55	146.92	15.1	58	1011.5
28/04/2023	14:10	00:09:36	45.3	1.8	9.36	142.59	14.7	58	1011.3
28/04/2023	14:20	00:09:38	47	1.8	9.48	140.74	14.4	59	1011.3
28/04/2023	14:30	00:10:00	47.1	2.2	9.60	145.96	14.3	60	1011.3
28/04/2023	14:40	00:08:11	48.5	2.2	10.14	146.21	14.2	58	1011.3
28/04/2023	14:50	00:09:12	43.4	2.2	10.03	147.49	14.1	58	1011.1
28/04/2023	15:00	00:09:53	44	1.8	10.01	147.00	14.1	59	1011.1
28/04/2023	15:10	00:09:54	44.5	1.8	10.69	146.34	14.1	61	1010.8
28/04/2023	15:20	00:09:53	42.9	1.8	10.73	145.24	14	61	1010.8
28/04/2023	15:30	00:09:04	45.7	1.3	10.87	145.60	14.1	61	1010.7
28/04/2023	15:40	00:09:37	43.5	1.8	11.10	144.03	14.2	62	1010.5
28/04/2023	15:50	00:09:13	43.4	1.3	10.19	142.63	14.5	63	1010.6
28/04/2023	16:00	00:09:13	47.2	1.8	9.41	141.46	14.6	63	1010.5
28/04/2023	16:10	00:10:00	44.7	2.7	9.17	142.98	14.3	63	1010.3
28/04/2023	16:20	00:09:04	43.3	1.8	9.20	145.70	14.3	65	1010.2
28/04/2023	16:30	00:09:14	43.7	1.3	9.08	145.27	14.2	65	1010.2
28/04/2023	16:40	00:09:49	45.8	1.3	9.66	141.36	14.2	65	1010.1
28/04/2023	16:50	00:08:03	43.3	1.8	9.85	142.98	14.1	65	1009.9
28/04/2023	17:00	00:09:52	44	1.3	10.74	143.60	14	66	1009.9
28/04/2023	17:10	00:08:55	43.3	1.8	10.41	143.14	13.8	67	1009.7
28/04/2023	17:20	00:09:43	41.1	1.8	10.77	143.60	13.6	68	1009.4
28/04/2023	17:30	00:09:12	42.3	1.3	10.50	143.36	13.4	70	1009.4
28/04/2023	17:40	00:08:22	43.4	1.3	10.81	141.74	13.2	70	1009.7
28/04/2023	17:50	00:10:00	39.2	1.8	11.33	142.17	12.9	72	1009.8
28/04/2023	18:00	00:09:47	38.1	1.3	11.93	141.97	12.8	73	1009.8
28/04/2023	18:10	00:09:45	40.7	0.9	11.92	139.00	12.7	74	1009.7
28/04/2023	18:20	00:10:00	40.9	0.9	11.90	136.84	12.5	76	1010
28/04/2023	18:30	00:09:30	41.3	1.8	12.12	142.93	12.2	77	1009.8
28/04/2023	18:40	00:09:32	41.5	1.8	11.99	140.31	11.9	80	1009.6
28/04/2023	18:50	00:09:48	40.3	1.3	13.37	140.38	11.7	80	1009.6
28/04/2023	19:00	00:10:00	39.4	1.3	12.59	137.79	11.4	82	1009.6
28/04/2023	19:10	00:10:00	39.3	1.3	12.83	136.39	11.2	83	1009.6
28/04/2023	19:20	00:10:00	41.9	0.9	12.62	138.60	11.1	83	1009.6
28/04/2023	19:30	00:10:00	43.4	1.3	11.91	141.02	10.8	84	1009.5
28/04/2023	19:40	00:09:47	40.7	1.3	11.73	139.41	10.7	85	1009.4
28/04/2023	19:50	00:09:47	39.5	1.3	11.14	141.63	10.6	85	1009.1
28/04/2023	20:00	00:10:00	40.3	1.3	10.67	140.10	10.4	86	1009.1
28/04/2023	20:10	00:10:00	43.8	1.3	11.00	140.68	10.3	86	1009.2
28/04/2023	20:20	00:10:00	40.7	1.8	11.09	136.25	10.2	86	1009.5
28/04/2023	20:30	00:10:00	43.9	1.3	11.21	141.00	10.1	86	1009.4
28/04/2023	20:40	00:10:00	41	2.2	11.09	139.64	9.9	87	1009.1
28/04/2023	20:50	00:10:00	43.4	1.8	11.11	139.88	9.8	87	1009.2
28/04/2023	21:00	00:10:00	39.3	1.8	11.42	137.95	9.8	88	1009.5
28/04/2023	21:10	00:10:00	41.8	1.3	11.71	141.56	9.8	87	1009.6
28/04/2023	21:20	00:10:00	42.2	1.8	12.17	136.99	9.8	86	1009.6
28/04/2023	21:30	00:10:00	37.9	1.8	11.98	134.68	9.7	86	1009.5
28/04/2023	21:40	00:10:00	36.5	1.3	11.15	136.89	9.7	87	1009.6
28/04/2023	21:50	00:10:00	34.3	1.3	11.29	133.13	9.8	88	1009.9
29/04/2023	06:00	00:08:34	44.6	0.9	6.91	132.78	9.4	94	1006.9
29/04/2023	06:10	00:09:07	45.2	1.3	7.18	134.43	9.4	94	1006.8
29/04/2023	06:20	00:08:48	43.7	0.9	6.91	140.33	9.4	94	1007

**TABELLA 2**  
**Livello di rumore residuo - Periodo Diurno**

Data [gg/mm/aaaa]	Ore [hh:mm]	Durata effettiva intervallo [hh:mm:ss]	L <sub>R</sub> [dB(A)]	v <sub>r</sub> [m/s]	V [m/s]	θ [°]	Temp. [°C]	Umid. [%]	Press. [Bar]
29/04/2023	06:30	00:08:50	42.8	0.9	6.63	141.56	9.4	94	1007
29/04/2023	06:40	00:08:47	42.7	0.9	7.96	146.17	9.4	94	1007.3
29/04/2023	06:50	00:09:48	42.4	0.9	8.20	143.18	9.4	94	1007.4
29/04/2023	07:00	00:09:20	44.5	0.9	7.36	143.48	9.5	94	1007.7
29/04/2023	07:10	00:10:00	39.5	0.9	7.07	138.54	9.5	94	1007.8
29/04/2023	07:20	00:09:39	41.8	0.4	6.28	140.81	9.6	94	1007.5
29/04/2023	07:30	00:08:53	40.5	0.4	5.76	136.32	9.7	94	1007.1
29/04/2023	07:40	00:08:32	44.7	0.9	4.61	140.53	9.8	94	1007.4
29/04/2023	07:50	00:10:00	40.8	0.4	5.08	147.92	9.9	94	1007.4
29/04/2023	08:00	00:09:45	42.9	0.4	5.11	144.72	10	94	1007.2
29/04/2023	08:10	00:09:50	44.1	0.9	4.39	141.71	9.9	94	1007.1
29/04/2023	08:20	00:09:20	39.7	1.3	4.87	138.34	9.9	94	1007.4
29/04/2023	08:30	00:10:00	40.5	0.9	4.62	139.72	9.9	94	1007.6
29/04/2023	08:40	00:10:00	40.7	0.9	4.21	133.17	10.1	94	1007.4
29/04/2023	08:50	00:08:55	43.2	0.9	3.66	127.78	10.2	93	1007.6
29/04/2023	09:10	00:10:00	42.1	0.9	4.14	134.99	10.3	93	1007.9
29/04/2023	09:20	00:10:00	43.7	0.9	4.26	134.95	10.4	93	1008
29/04/2023	09:30	00:10:00	41.5	0.9	4.14	134.74	10.4	93	1008.2
29/04/2023	09:40	00:10:00	42.7	0.4	3.55	138.01	10.4	93	1008.2
29/04/2023	09:50	00:10:00	44.4	0.4	3.42	134.41	10.3	93	1008.4
29/04/2023	10:00	00:09:14	42.1	0.4	3.43	130.89	10.3	93	1008.5
29/04/2023	10:10	00:08:17	41.5	0.4	4.31	130.30	10.4	93	1008.5
29/04/2023	10:20	00:08:58	41.8	0.4	3.31	132.03	10.4	93	1008.4
29/04/2023	10:30	00:07:46	44.7	0.4	3.17	132.71	10.5	92	1008.4
29/04/2023	10:40	00:09:36	44.8	0.4	3.65	137.23	10.7	93	1008.1
29/04/2023	10:50	00:08:37	43.6	0.9	3.95	138.14	10.8	92	1008.1
29/04/2023	11:00	00:10:00	44.1	0.4	4.05	137.67	10.9	92	1008
29/04/2023	11:10	00:10:00	42.9	0.9	3.71	143.51	11.1	92	1007.9
29/04/2023	11:20	00:09:33	41.9	1.3	3.90	132.54	11.3	92	1008
29/04/2023	11:30	00:09:35	44.4	1.3	4.48	131.27	11.3	91	1008.2
29/04/2023	11:40	00:09:12	44.6	0.9	4.85	129.83	11.3	91	1008.1
29/04/2023	11:50	00:09:18	41.4	0.9	4.71	134.43	11.7	90	1008.2
29/04/2023	12:00	00:10:00	38.9	1.3	5.19	134.78	11.8	89	1007.9
29/04/2023	12:10	00:09:41	42.5	0.9	4.87	136.98	12.1	89	1008
29/04/2023	12:20	00:09:38	41.3	1.3	4.72	138.56	12.4	88	1008
29/04/2023	12:30	00:09:01	42.7	0.9	5.26	135.57	12.7	89	1007.9
29/04/2023	12:40	00:09:54	41.2	1.3	4.81	133.21	13.2	86	1007.9
29/04/2023	12:50	00:09:19	42.6	1.3	5.06	133.46	13.1	85	1007.9
29/04/2023	13:00	00:08:47	43.9	0.9	5.07	134.65	13.2	84	1007.9
29/04/2023	13:10	00:09:17	41.4	0.9	5.15	134.51	12.9	87	1008
29/04/2023	13:20	00:08:43	41.5	0.9	5.51	139.12	12.7	87	1007.7
29/04/2023	13:30	00:10:00	42.9	0.9	5.38	140.26	12.9	87	1007.7
29/04/2023	13:40	00:10:00	43	1.3	5.12	139.91	13.7	85	1007.7
29/04/2023	13:50	00:10:00	40.3	1.3	5.24	138.25	13.6	83	1007.7
29/04/2023	14:00	00:10:00	41.5	1.3	5.36	135.27	13.6	84	1007.7
29/04/2023	14:10	00:10:00	43.5	0.9	4.65	133.53	14.1	83	1007.7
29/04/2023	14:20	00:09:51	44.7	1.3	5.37	130.71	13.8	84	1007.7
29/04/2023	14:30	00:04:49	45	1.3	5.77	134.34	13.7	83	1007.6
29/04/2023	14:40	00:08:07	45.8	1.3	5.14	129.44	13.3	85	1007.7
29/04/2023	14:50	00:09:43	46.8	1.8	5.76	128.31	12.6	87	1007.5
29/04/2023	15:00	00:10:00	46	1.3	6.37	123.27	12.5	88	1007.4
29/04/2023	15:10	00:09:49	43.7	1.8	5.94	118.59	12.5	88	1007.2
29/04/2023	15:20	00:09:42	43.4	1.8	6.27	121.74	12.4	88	1007.2

**TABELLA 2**  
**Livello di rumore residuo - Periodo Diurno**

Data	Ore	Durata effettiva intervallo	L <sub>R</sub>	v <sub>r</sub>	V	θ	Temp.	Umid.	Press.
[gg/mm/aaaa]	[hh:mm]	[hh:mm:ss]	[dB(A)]	[m/s]	[m/s]	[°]	[°C]	[%]	[Bar]
29/04/2023	15:30	00:10:00	45.7	1.8	5.92	126.23	12.3	89	1007.2
29/04/2023	15:40	00:10:00	46.4	1.8	5.05	130.58	11.8	90	1007.1
29/04/2023	15:50	00:09:39	45.8	1.8	5.97	128.24	12.1	90	1007
29/04/2023	16:00	00:09:33	45.1	1.8	6.29	127.81	12	90	1007
29/04/2023	16:10	00:10:00	44.1	1.8	5.34	129.92	11.8	90	1007
29/04/2023	16:20	00:10:00	44	1.8	5.35	119.74	11.6	91	1006.8
29/04/2023	16:30	00:09:17	46.9	1.3	4.44	121.14	11.8	91	1006.8
29/04/2023	16:40	00:09:25	44.3	1.8	3.77	115.06	11.9	91	1006.7
29/04/2023	20:20	00:10:00	36.2	0	3.72	26.62	11.8	91	1006.7
29/04/2023	20:30	00:10:00	38	0.4	3.44	15.83	11.7	90	1006.6
29/04/2023	21:00	00:10:00	32.6	0	3.32	10.28	11.6	90	1006.8
29/04/2023	21:10	00:10:00	31.1	0	3.53	13.04	11.6	90	1006.9
29/04/2023	21:20	00:10:00	33.1	0	3.47	6.60	11.4	89	1006.9
29/04/2023	21:30	00:10:00	38.5	0	3.14	11.71	11.3	89	1007
29/04/2023	21:40	00:10:00	27.8	0	3.09	15.76	11.2	89	1007.1
30/04/2023	06:00	00:09:35	46.9	0.9	3.87	8.47	10.3	96	1006.5
30/04/2023	06:10	00:08:04	44.1	0.9	4.14	29.04	10.2	96	1006.6
30/04/2023	06:20	00:06:32	45.1	1.3	6.05	40.90	10.2	96	1006.6
30/04/2023	06:30	00:07:46	43.1	1.3	7.12	45.98	10.2	96	1006.6
30/04/2023	06:40	00:08:12	39.7	1.3	7.09	40.96	10.1	96	1006.6
30/04/2023	06:50	00:09:37	44.3	0.9	5.15	24.72	10.1	96	1006.7
30/04/2023	07:00	00:08:55	44.2	0.9	5.30	39.99	10.1	96	1006.7
30/04/2023	07:10	00:08:48	42.8	1.3	5.99	33.21	10.1	97	1006.7
30/04/2023	07:20	00:09:41	40.5	0.9	6.03	31.55	10.1	97	1006.8
30/04/2023	07:30	00:08:25	41.7	0.9	5.88	27.33	10.2	96	1006.7
30/04/2023	07:40	00:10:00	43.4	0.4	5.74	32.34	10.2	96	1006.7
30/04/2023	07:50	00:10:00	42.2	0.4	5.88	28.69	10.1	97	1006.7
30/04/2023	08:00	00:10:00	46.9	1.3	5.45	21.40	10	97	1006.8
30/04/2023	08:10	00:10:00	44.3	1.3	6.14	22.28	10	97	1006.7
30/04/2023	08:20	00:10:00	40.1	1.3	5.57	27.05	10	96	1006.9
30/04/2023	08:30	00:09:26	41.7	1.3	5.53	21.46	10.1	97	1006.8
30/04/2023	08:40	00:08:44	40.6	1.3	5.88	22.85	10.1	97	1006.9
30/04/2023	08:50	00:09:48	43.6	1.3	5.64	14.76	10.1	97	1007
30/04/2023	09:00	00:10:00	43.6	0.9	5.17	29.29	10.2	97	1007.1
30/04/2023	09:10	00:10:00	46.7	1.3	6.01	25.70	10.2	97	1007.1
30/04/2023	09:20	00:10:00	42.6	1.8	6.42	20.03	10.2	97	1007
30/04/2023	09:30	00:10:00	42.1	1.3	6.34	22.92	10.2	97	1007.2
30/04/2023	09:40	00:10:00	40.9	1.8	6.21	30.64	10.3	97	1007.3
30/04/2023	09:50	00:10:00	42.9	0.9	6.36	24.55	10.8	97	1007.2
30/04/2023	10:00	00:10:00	43.5	1.3	6.21	25.94	10.7	97	1007.3
30/04/2023	10:10	00:10:00	45.9	1.8	7.16	28.37	10.7	96	1007.2
30/04/2023	10:20	00:09:20	42.9	1.3	7.08	22.03	10.8	96	1007.3
30/04/2023	10:30	00:09:36	42.7	1.3	7.55	20.90	11.1	95	1007.2
30/04/2023	10:40	00:09:17	43.6	1.8	8.00	23.28	11.4	91	1007.4
30/04/2023	10:50	00:09:54	44.3	1.8	7.43	31.88	11.7	91	1007.2
30/04/2023	11:00	00:09:39	46	1.3	7.53	23.72	12.4	88	1007.3
30/04/2023	11:10	00:09:42	43.7	2.2	8.02	21.63	12.7	85	1007.4
30/04/2023	11:20	00:09:54	45.5	2.2	8.66	24.94	12.5	86	1007
30/04/2023	11:30	00:10:00	42.9	2.7	9.20	30.61	12.2	87	1007.1
30/04/2023	11:40	00:09:01	44.9	1.8	8.41	28.00	12.3	87	1007.2
30/04/2023	11:50	00:09:26	44.3	2.2	9.78	26.49	12.6	86	1007.2
30/04/2023	12:00	00:10:00	44.6	2.7	7.69	29.28	12.7	87	1007.1
30/04/2023	12:10	00:10:00	45.8	2.2	8.63	26.89	13.2	84	1007.3



**TABELLA 2**  
**Livello di rumore residuo - Periodo Diurno**

Data [gg/mm/aaaa]	Ore [hh:mm]	Durata effettiva intervallo [hh:mm:ss]	L <sub>R</sub> [dB(A)]	v <sub>r</sub> [m/s]	V [m/s]	θ [°]	Temp. [°C]	Umid. [%]	Press. [Bar]
30/04/2023	12:20	00:09:35	43.2	2.7	8.89	25.83	13.1	83	1007.3
30/04/2023	12:30	00:09:53	46.3	2.2	9.31	29.66	13.1	84	1007.3
30/04/2023	12:40	00:08:50	45.2	2.2	8.87	22.59	13.2	84	1007.2
30/04/2023	12:50	00:10:00	44.8	2.7	7.51	30.68	13.3	83	1007
30/04/2023	13:00	00:09:55	46.7	2.7	9.01	36.53	13.6	81	1006.9
30/04/2023	13:10	00:10:00	46.6	3.1	7.67	31.69	13.2	81	1006.9
30/04/2023	13:20	00:10:00	46.7	2.7	8.50	38.54	13.2	82	1006.8
30/04/2023	13:30	00:10:00	47.1	3.1	7.15	36.40	13.4	82	1006.8
30/04/2023	13:40	00:10:00	46.9	2.7	8.65	37.23	13.4	80	1006.9
30/04/2023	13:50	00:10:00	44.9	2.7	8.60	45.76	13.5	80	1006.7
30/04/2023	14:00	00:10:00	45.4	2.2	7.30	41.48	13.6	80	1006.7
30/04/2023	14:10	00:10:00	48.1	2.2	8.93	46.24	13.8	79	1006.6
30/04/2023	14:20	00:08:58	47.3	3.1	8.08	43.89	13.6	79	1006.6
30/04/2023	14:30	00:10:00	46	3.1	7.98	39.54	13.6	80	1006.7
30/04/2023	14:40	00:09:30	46.3	2.7	7.27	39.10	13.9	78	1006.5
30/04/2023	14:50	00:10:00	42.8	2.7	7.72	35.18	13.9	79	1006.5
30/04/2023	15:00	00:09:52	47	2.2	7.25	33.26	14.2	78	1006.4
30/04/2023	15:10	00:10:00	47	2.7	8.14	34.23	13.9	77	1006.5
30/04/2023	15:20	00:10:00	44.7	2.7	8.18	32.34	14.1	77	1006.4
30/04/2023	15:30	00:10:00	43.8	2.7	7.27	41.48	13.9	77	1006.3
30/04/2023	15:40	00:10:00	41.6	2.2	7.44	30.15	13.8	78	1006.2
30/04/2023	15:50	00:09:32	41.7	2.2	5.93	30.10	14	76	1006.1
30/04/2023	16:00	00:10:00	41.9	1.8	7.74	43.65	14.1	75	1006.1
30/04/2023	16:10	00:10:00	44.3	2.2	7.21	41.70	14.2	73	1005.9
30/04/2023	16:20	00:09:42	42	2.2	7.58	39.94	14.2	75	1005.9
30/04/2023	16:30	00:10:00	42.9	2.2	6.98	34.61	14.1	75	1005.8
30/04/2023	16:40	00:08:42	43	1.8	6.75	34.35	13.9	75	1005.9
30/04/2023	16:50	00:10:00	43.4	2.2	5.64	27.49	13.8	75	1005.9
30/04/2023	17:00	00:10:00	41	2.2	7.20	33.04	13.8	76	1005.7
30/04/2023	17:10	00:10:00	41	2.2	6.30	25.09	13.9	76	1005.8
30/04/2023	17:20	00:10:00	40.7	2.2	5.88	30.35	13.9	75	1005.8
30/04/2023	17:30	00:09:20	42.6	1.8	4.86	34.60	13.8	75	1005.8
30/04/2023	17:40	00:09:54	41.2	1.8	6.34	36.18	13.8	76	1005.9
30/04/2023	17:50	00:09:15	42.9	1.8	7.38	41.58	13.6	76	1005.8
30/04/2023	18:00	00:08:57	39.5	1.8	7.94	37.81	13.5	77	1005.8
30/04/2023	18:10	00:09:47	41.8	1.8	7.53	47.63	13.4	77	1005.8
30/04/2023	18:20	00:09:19	41.4	2.2	8.36	40.93	13.5	74	1005.8
30/04/2023	18:30	00:10:00	40	1.8	8.45	42.62	13.4	77	1005.8
30/04/2023	18:40	00:10:00	38.3	1.8	7.31	42.93	13.2	78	1005.7
30/04/2023	18:50	00:09:10	39.4	1.3	8.49	51.03	13.1	79	1005.6
30/04/2023	19:00	00:09:46	38.7	1.8	7.50	57.59	12.9	79	1005.6
30/04/2023	19:10	00:10:00	38.9	1.8	6.63	55.48	12.8	79	1005.6
30/04/2023	19:20	00:10:00	39.3	1.3	5.80	60.56	12.7	80	1005.7
30/04/2023	19:30	00:08:42	36.4	0.9	6.99	73.43	12.6	81	1005.7
30/04/2023	19:40	00:08:40	39.7	0.9	8.99	84.13	12.4	83	1005.6
30/04/2023	19:50	00:10:00	40	1.3	11.07	86.78	12.2	84	1005.7
30/04/2023	20:00	00:10:00	38.4	1.8	11.77	86.11	12.1	85	1005.8
30/04/2023	20:10	00:10:00	37.8	1.8	11.38	85.82	11.9	85	1006
30/04/2023	20:20	00:09:31	36.5	1.3	11.34	84.33	11.8	85	1006.1
30/04/2023	20:30	00:10:00	36.4	1.3	10.52	84.02	11.7	86	1006.1
30/04/2023	20:40	00:09:56	38	1.3	10.18	73.33	11.6	86	1006.2
30/04/2023	20:50	00:10:00	36.9	1.8	8.57	74.44	11.6	85	1006.2
30/04/2023	21:00	00:10:00	36.4	1.3	9.88	83.52	11.5	85	1006.2

**TABELLA 2**  
**Livello di rumore residuo - Periodo Diurno**

Data [gg/mm/aaaa]	Ore [hh:mm]	Durata effettiva intervallo [hh:mm:ss]	L <sub>R</sub> [dB(A)]	v <sub>r</sub> [m/s]	V [m/s]	θ [°]	Temp. [°C]	Umid. [%]	Press. [Bar]
30/04/2023	21:10	00:10:00	35.6	1.3	7.30	74.27	11.4	86	1006.4
30/04/2023	21:20	00:10:00	37.8	1.8	6.83	81.34	11.3	86	1006.4
30/04/2023	21:30	00:09:27	34.4	1.3	6.17	86.27	11.3	87	1006.4
30/04/2023	21:40	00:10:00	33.5	1.3	7.19	99.21	11.2	88	1006.4
30/04/2023	21:50	00:10:00	33.8	0.4	8.07	86.19	11.2	87	1006.4
01/05/2023	06:00	00:09:05	45.5	0.4	7.89	74.85	9.7	80	1005.5
01/05/2023	06:10	00:08:33	46.2	0	8.88	77.79	9.7	80	1005.5
01/05/2023	06:20	00:09:05	47.2	0.4	6.99	67.27	9.7	80	1005.5
01/05/2023	06:30	00:08:29	43.6	0	7.30	67.72	9.7	80	1005.5
01/05/2023	06:40	00:09:28	39.1	0.4	6.97	64.86	9.7	81	1005.6
01/05/2023	06:50	00:09:11	40.7	0.9	7.54	67.70	9.6	83	1005.8
01/05/2023	07:00	00:09:01	41.4	1.3	7.19	66.35	9.4	85	1005.6
01/05/2023	07:10	00:08:55	41.6	1.3	7.27	68.50	9.2	87	1005.7
01/05/2023	07:20	00:10:00	42.2	1.8	6.14	66.51	9.1	89	1005.7
01/05/2023	07:30	00:08:50	43.1	1.3	6.28	71.64	8.9	90	1005.7
01/05/2023	07:40	00:09:25	45.4	1.3	7.85	76.00	8.9	91	1005.9
01/05/2023	07:50	00:09:36	44.2	1.3	6.11	72.15	8.8	92	1006
01/05/2023	08:00	00:08:50	42.9	1.3	4.31	59.81	8.8	93	1006
01/05/2023	08:10	00:09:45	42.4	1.3	5.11	55.03	8.7	94	1006.1
01/05/2023	08:20	00:10:00	39.7	1.8	5.20	57.86	8.7	94	1006
01/05/2023	08:50	00:09:03	40.2	0.9	5.99	63.78	8.8	95	1006.2
01/05/2023	09:10	00:09:36	41.3	1.3	6.56	74.51	8.9	96	1006.2
01/05/2023	09:30	00:10:00	40.7	0.9	5.58	70.59	8.8	96	1006.4
01/05/2023	09:40	00:10:00	37.7	1.3	6.85	78.53	8.8	96	1006.4
01/05/2023	10:00	00:10:00	36.8	1.8	6.71	62.10	8.7	96	1006.4
01/05/2023	10:20	00:10:00	39.4	1.3	6.00	49.05	8.7	96	1006.3
01/05/2023	10:30	00:10:00	39.6	1.3	5.17	48.97	8.7	96	1006.4
01/05/2023	10:40	00:10:00	42.9	1.8	4.09	42.74	8.8	96	1006.4
01/05/2023	10:50	00:10:00	37.9	1.8	4.32	55.74	8.8	96	1006.3
01/05/2023	11:00	00:10:00	39	1.3	4.99	43.30	8.8	96	1006.5
01/05/2023	12:10	00:10:00	40	1.8	6.47	39.96	8.8	96	1006.5
01/05/2023	15:10	00:10:00	44.5	1.8	7.72	46.98	8.4	97	1006
01/05/2023	16:50	00:10:00	44.9	1.8	6.20	33.79	8.1	97	1005.7
01/05/2023	19:40	00:10:00	38.4	1.8	8.92	18.30	7.5	97	1005.8
01/05/2023	20:00	00:10:00	42.3	1.8	8.35	20.07	7.5	97	1005.9
01/05/2023	20:20	00:10:00	43.2	1.8	9.71	20.21	7.5	97	1005.7
01/05/2023	20:50	00:10:00	39.7	1.8	8.50	13.65	7.4	97	1005.9
01/05/2023	21:00	00:10:00	43.2	1.8	7.96	12.86	7.5	97	1005.8
01/05/2023	21:40	00:10:00	49.8	2.2	8.96	19.46	7.4	97	1006.1
02/05/2023	09:00	00:10:00	49.3	2.2	10.21	11.41	7	98	1007.3
02/05/2023	09:40	00:10:00	48.9	2.2	10.60	16.86	7.2	98	1007.7
02/05/2023	09:50	00:10:00	51.7	2.2	9.85	11.14	7.2	98	1007.8
02/05/2023	10:10	00:10:00	50.3	2.2	10.15	14.68	7.2	98	1008
02/05/2023	10:20	00:09:16	50.8	2.2	10.59	14.91	7.2	98	1008.1
02/05/2023	10:30	00:10:00	49.1	2.2	12.41	20.15	7.2	98	1008
02/05/2023	10:40	00:10:00	47.9	2.2	9.02	17.74	7.3	98	1008.1
02/05/2023	10:50	00:10:00	49.8	2.2	9.56	21.23	7.3	98	1008.1
02/05/2023	11:00	00:09:27	53.8	2.2	12.71	25.35	7.4	98	1008.2
02/05/2023	11:10	00:10:00	52.1	3.1	11.58	19.19	7.4	98	1008.3
02/05/2023	11:20	00:09:31	50.8	2.7	11.66	16.74	7.5	98	1008.3
02/05/2023	11:30	00:09:11	51.3	2.2	9.75	21.38	7.6	98	1008.3
02/05/2023	11:40	00:10:00	53.1	2.7	10.70	20.05	7.6	98	1008.6
02/05/2023	11:50	00:10:00	50.7	2.7	12.53	9.56	7.6	98	1008.5

**TABELLA 2**  
**Livello di rumore residuo - Periodo Diurno**

Data [gg/mm/aaaa]	Ore [hh:mm]	Durata effettiva intervallo [hh:mm:ss]	L <sub>R</sub> [dB(A)]	v <sub>r</sub> [m/s]	V [m/s]	θ [°]	Temp. [°C]	Umid. [%]	Press. [Bar]
02/05/2023	12:00	00:10:00	52.1	2.7	10.97	22.46	7.6	98	1008.6
02/05/2023	12:20	00:10:00	50.7	2.7	10.59	17.10	7.8	98	1008.5
02/05/2023	12:30	00:09:20	50.1	2.7	10.89	16.20	7.9	98	1008.5
02/05/2023	12:40	00:10:00	48.6	2.2	9.93	19.54	7.9	98	1008.5
02/05/2023	13:20	00:10:00	52.6	2.2	9.20	11.86	8.1	98	1008.6
02/05/2023	14:00	00:09:04	48.5	2.7	9.35	25.55	8.1	98	1008.8
02/05/2023	14:10	00:09:43	53.3	2.2	11.61	23.22	8.1	98	1009.3
02/05/2023	14:20	00:09:50	53.5	2.7	11.12	17.07	8.1	98	1009.4
02/05/2023	14:30	00:10:00	49.5	2.7	11.30	19.48	8.1	98	1009.3
02/05/2023	14:40	00:10:00	45.9	2.2	10.50	23.04	8.1	98	1009.4
02/05/2023	14:50	00:09:34	47	1.8	10.39	17.15	8.2	98	1009.4
02/05/2023	15:00	00:10:00	47.1	2.2	10.98	20.16	8.2	98	1009.5
02/05/2023	15:10	00:10:00	46.7	2.2	11.24	20.07	8.3	98	1009.5
02/05/2023	15:20	00:10:00	48.9	2.2	10.44	16.60	8.4	98	1009.4
02/05/2023	15:30	00:10:00	48	2.2	9.42	19.54	8.4	98	1009.6
02/05/2023	15:40	00:10:00	43.9	2.2	7.74	16.77	8.5	98	1009.4
02/05/2023	16:00	00:10:00	43.7	1.8	6.92	11.28	8.6	98	1009.5
02/05/2023	16:10	00:10:00	41.6	1.8	7.15	14.64	8.5	98	1009.5
02/05/2023	16:20	00:09:15	44.8	1.3	8.87	12.68	8.6	98	1009.4
02/05/2023	16:30	00:10:00	48	1.8	9.79	4.71	8.8	98	1009.5
02/05/2023	16:40	00:10:00	46.9	2.7	9.07	18.79	8.8	98	1009.5
02/05/2023	16:50	00:10:00	48.5	2.2	9.29	32.61	8.7	98	1009.5
02/05/2023	17:00	00:09:29	49.1	2.2	10.13	30.32	8.7	98	1009.5
02/05/2023	17:10	00:09:54	46.4	2.2	10.47	25.80	8.8	98	1009.4
02/05/2023	17:20	00:10:00	47.8	1.8	9.26	26.56	9.1	98	1009.5
02/05/2023	17:30	00:10:00	49.3	2.2	8.22	6.65	8.9	98	1009.5
02/05/2023	17:40	00:09:28	44.2	2.2	9.15	7.31	9	98	1009.3
02/05/2023	17:50	00:10:00	41.1	1.8	9.17	6.28	9.1	98	1009.3
02/05/2023	18:00	00:10:00	43.9	1.8	9.02	9.20	9.2	98	1009.3
02/05/2023	18:10	00:10:00	42.5	1.8	9.68	9.46	9.1	98	1009.3
02/05/2023	18:20	00:08:23	50.9	1.8	9.35	7.24	9.3	98	1009.3
02/05/2023	18:30	00:10:00	49	2.7	10.87	13.94	9	98	1009.5
02/05/2023	18:40	00:09:36	44.3	2.2	10.15	15.56	8.8	98	1009.4
02/05/2023	18:50	00:09:53	45.3	1.8	10.02	17.28	8.7	98	1009.6
02/05/2023	19:00	00:09:31	40.6	1.8	10.25	11.91	8.5	98	1009.6
02/05/2023	19:10	00:09:13	40.4	1.3	10.39	17.68	8.6	98	1009.6
02/05/2023	19:20	00:09:42	44.9	1.3	9.36	17.31	8.5	98	1009.8
02/05/2023	19:30	00:10:00	46.5	1.8	9.44	13.77	8.4	98	1009.9
02/05/2023	19:40	00:10:00	42.9	1.8	8.69	15.45	8.4	98	1010
02/05/2023	19:50	00:09:48	40.4	1.8	8.09	16.09	8.4	98	1010
02/05/2023	20:00	00:09:54	39.8	1.3	9.08	12.28	8.4	98	1010.1
02/05/2023	20:10	00:10:00	41.9	1.3	7.57	5.92	8.4	98	1010.3
02/05/2023	20:20	00:10:00	46.1	1.3	7.70	358.62	8.3	98	1010.4
02/05/2023	20:30	00:10:00	46.6	2.2	7.62	2.15	8.3	98	1010.5
02/05/2023	20:40	00:09:50	45.2	1.8	7.48	6.12	8.3	98	1010.6
02/05/2023	20:50	00:10:00	43.1	1.8	7.24	0.08	8.2	98	1010.8
02/05/2023	21:00	00:10:00	44.2	1.8	8.00	4.12	8.2	98	1010.9
02/05/2023	21:10	00:10:00	47.6	1.8	8.24	10.93	8.2	98	1010.9
02/05/2023	21:20	00:09:49	42.6	2.2	8.08	3.37	8.2	98	1011
02/05/2023	21:30	00:09:54	44.7	1.8	8.19	9.69	8.2	98	1011
02/05/2023	21:40	00:10:00	41.3	1.8	7.82	18.14	8.3	98	1011.1
02/05/2023	21:50	00:10:00	45.5	1.8	8.25	18.66	8.3	98	1011.2
03/05/2023	06:00	00:09:48	47.4	1.8	8.75	15.28	7.3	98	1012.4

**TABELLA 2**  
**Livello di rumore residuo - Periodo Diurno**

<b>Data</b> <b>[gg/mm/aaaa]</b>	<b>Ore</b> <b>[hh:mm]</b>	<b>Durata effettiva</b> <b>intervallo</b> <b>[hh:mm:ss]</b>	<b>L<sub>R</sub></b> <b>[dB(A)]</b>	<b>v<sub>r</sub></b> <b>[m/s]</b>	<b>V</b> <b>[m/s]</b>	<b>θ</b> <b>[°]</b>	<b>Temp.</b> <b>[°C]</b>	<b>Umid.</b> <b>[%]</b>	<b>Press.</b> <b>[Bar]</b>
03/05/2023	06:10	00:09:20	47.1	2.2	7.97	15.50	7.2	98	1012.5
03/05/2023	06:20	00:08:59	49.2	1.8	8.53	10.92	7.2	98	1012.5
03/05/2023	06:30	00:09:19	47.3	2.2	8.83	12.70	7.2	98	1012.6
03/05/2023	06:40	00:10:00	49.8	2.2	7.77	13.43	7.2	98	1012.8
03/05/2023	07:00	00:09:04	48	2.2	7.42	9.71	7.2	98	1013.1
03/05/2023	07:10	00:10:00	47.6	2.2	6.62	9.46	7.2	98	1013
03/05/2023	07:20	00:09:09	46.1	2.2	6.99	9.57	7.2	98	1013
03/05/2023	07:30	00:10:00	47.8	2.2	6.84	11.12	7.2	98	1013.2
03/05/2023	07:40	00:10:00	46.1	1.8	7.29	7.64	7.2	98	1013.2
03/05/2023	07:50	00:10:00	45.3	2.2	6.42	6.32	7.2	98	1013.2
03/05/2023	08:10	00:09:49	48.8	1.8	6.99	13.24	7.2	98	1013.3
03/05/2023	08:20	00:09:17	45.4	2.2	7.42	17.02	7.2	98	1013.4
03/05/2023	08:30	00:10:00	44.7	1.8	7.02	16.75	7.2	98	1013.4
03/05/2023	08:40	00:10:00	43.7	1.8	7.33	22.83	7.3	98	1013.5
03/05/2023	08:50	00:10:00	41.5	1.8	7.29	13.62	7.3	98	1013.7
03/05/2023	09:00	00:10:00	44.9	1.3	8.06	18.60	7.5	98	1013.7
03/05/2023	09:10	00:10:00	43.5	1.8	8.93	21.75	7.5	98	1013.8
03/05/2023	09:20	00:08:24	45.4	1.3	8.08	22.50	7.6	98	1014
03/05/2023	09:30	00:09:48	45.2	1.8	8.33	29.86	7.6	98	1014
03/05/2023	09:40	00:09:34	43.3	1.3	7.54	24.69	7.7	98	1014
03/05/2023	09:50	00:09:55	45.3	1.3	7.31	19.83	7.7	98	1014
03/05/2023	10:00	00:07:53	45.1	1.3	6.69	15.11	7.8	98	1014.1



**TABELLA 3**  
**Riordino Livello di rumore residuo - Periodo Diurno**

Data [gg/mm/aaaa]	Ore [hh:mm]	Durata effettiva intervallo [hh:mm:ss]	L <sub>R</sub> [dB(A)]	v <sub>r</sub> [m/s]	V [m/s]	θ [°]	Temp. [°C]	Umid. [%]	Press. [Bar]	Classe di v <sub>r</sub> [m/s]
28/04/2023	06:10	00:08:46	41.6	0	8.48	138.85	10.1	52	1011	0.0 ÷ 1.0
28/04/2023	06:40	00:10:00	42.4	0	9.14	139.80	10	55	1011.4	0.0 ÷ 1.0
29/04/2023	20:20	00:10:00	36.2	0	3.72	26.62	11.8	91	1006.7	0.0 ÷ 1.0
29/04/2023	21:00	00:10:00	32.6	0	3.32	10.28	11.6	90	1006.8	0.0 ÷ 1.0
29/04/2023	21:10	00:10:00	31.1	0	3.53	13.04	11.6	90	1006.9	0.0 ÷ 1.0
29/04/2023	21:20	00:10:00	33.1	0	3.47	6.60	11.4	89	1006.9	0.0 ÷ 1.0
29/04/2023	21:30	00:10:00	38.5	0	3.14	11.71	11.3	89	1007	0.0 ÷ 1.0
29/04/2023	21:40	00:10:00	27.8	0	3.09	15.76	11.2	89	1007.1	0.0 ÷ 1.0
01/05/2023	06:10	00:08:33	46.2	0	8.88	77.79	9.7	80	1005.5	0.0 ÷ 1.0
01/05/2023	06:30	00:08:29	43.6	0	7.30	67.72	9.7	80	1005.5	0.0 ÷ 1.0
27/04/2023	21:20	00:10:00	36.7	0.4	8.03	130.96	11	48	1010.7	0.0 ÷ 1.0
27/04/2023	21:40	00:10:00	33.9	0.4	8.15	134.10	11.1	45	1011.1	0.0 ÷ 1.0
28/04/2023	06:00	00:08:30	42.2	0.4	8.52	140.09	10.2	53	1011.1	0.0 ÷ 1.0
28/04/2023	06:20	00:08:35	42.3	0.4	8.55	138.56	10.1	54	1011.1	0.0 ÷ 1.0
28/04/2023	06:30	00:09:14	42.1	0.4	8.44	139.37	10.1	55	1011.2	0.0 ÷ 1.0
28/04/2023	06:50	00:10:00	42.9	0.4	9.05	142.47	10.2	55	1011.6	0.0 ÷ 1.0
28/04/2023	07:00	00:08:59	43.7	0.4	8.73	139.75	10.6	54	1011.6	0.0 ÷ 1.0
28/04/2023	07:10	00:10:00	42	0.4	9.28	142.02	10.7	54	1011.7	0.0 ÷ 1.0
28/04/2023	07:20	00:10:00	41.8	0.4	9.64	140.97	10.7	53	1011.8	0.0 ÷ 1.0
28/04/2023	07:30	00:10:00	42.9	0.4	9.94	139.94	11.1	52	1011.8	0.0 ÷ 1.0
28/04/2023	07:40	00:09:44	42.3	0.4	9.79	141.07	11.3	52	1011.7	0.0 ÷ 1.0
29/04/2023	07:20	00:09:39	41.8	0.4	6.28	140.81	9.6	94	1007.5	0.0 ÷ 1.0
29/04/2023	07:30	00:08:53	40.5	0.4	5.76	136.32	9.7	94	1007.1	0.0 ÷ 1.0
29/04/2023	07:50	00:10:00	40.8	0.4	5.08	147.92	9.9	94	1007.4	0.0 ÷ 1.0
29/04/2023	08:00	00:09:45	42.9	0.4	5.11	144.72	10	94	1007.2	0.0 ÷ 1.0
29/04/2023	09:40	00:10:00	42.7	0.4	3.55	138.01	10.4	93	1008.2	0.0 ÷ 1.0
29/04/2023	09:50	00:10:00	44.4	0.4	3.42	134.41	10.3	93	1008.4	0.0 ÷ 1.0
29/04/2023	10:00	00:09:14	42.1	0.4	3.43	130.89	10.3	93	1008.5	0.0 ÷ 1.0
29/04/2023	10:10	00:08:17	41.5	0.4	4.31	130.30	10.4	93	1008.5	0.0 ÷ 1.0
29/04/2023	10:20	00:08:58	41.8	0.4	3.31	132.03	10.4	93	1008.4	0.0 ÷ 1.0
29/04/2023	10:30	00:07:46	44.7	0.4	3.17	132.71	10.5	92	1008.4	0.0 ÷ 1.0
29/04/2023	10:40	00:09:36	44.8	0.4	3.65	137.23	10.7	93	1008.1	0.0 ÷ 1.0
29/04/2023	11:00	00:10:00	44.1	0.4	4.05	137.67	10.9	92	1008	0.0 ÷ 1.0
29/04/2023	20:30	00:10:00	38	0.4	3.44	15.83	11.7	90	1006.6	0.0 ÷ 1.0
30/04/2023	07:40	00:10:00	43.4	0.4	5.74	32.34	10.2	96	1006.7	0.0 ÷ 1.0
30/04/2023	07:50	00:10:00	42.2	0.4	5.88	28.69	10.1	97	1006.7	0.0 ÷ 1.0
30/04/2023	21:50	00:10:00	33.8	0.4	8.07	86.19	11.2	87	1006.4	0.0 ÷ 1.0
01/05/2023	06:00	00:09:05	45.5	0.4	7.89	74.85	9.7	80	1005.5	0.0 ÷ 1.0
01/05/2023	06:20	00:09:05	47.2	0.4	6.99	67.27	9.7	80	1005.5	0.0 ÷ 1.0
01/05/2023	06:40	00:09:28	39.1	0.4	6.97	64.86	9.7	81	1005.6	0.0 ÷ 1.0
27/04/2023	12:00	00:09:15	43.7	0.9	5.29	132.00	15.8	28	1010.7	0.0 ÷ 1.0
27/04/2023	13:50	00:10:00	38.7	0.9	6.12	138.16	16.4	34	1010.5	0.0 ÷ 1.0
27/04/2023	16:10	00:09:04	43.1	0.9	7.03	136.52	15.7	39	1010.3	0.0 ÷ 1.0
27/04/2023	17:50	00:09:44	40	0.9	7.09	131.47	15	46	1010.2	0.0 ÷ 1.0
27/04/2023	18:00	00:10:00	40.4	0.9	7.20	131.36	14.7	47	1010	0.0 ÷ 1.0
27/04/2023	18:10	00:09:41	35.5	0.9	7.11	129.99	14.6	48	1010	0.0 ÷ 1.0
27/04/2023	18:20	00:10:00	38.7	0.9	6.96	132.92	14.2	48	1010.2	0.0 ÷ 1.0
27/04/2023	18:30	00:09:43	35.5	0.9	7.31	131.87	13.9	50	1010.2	0.0 ÷ 1.0
27/04/2023	18:40	00:09:11	36.4	0.9	6.81	133.11	13.6	51	1010.3	0.0 ÷ 1.0
27/04/2023	18:50	00:09:48	41.2	0.9	7.06	133.76	13.6	51	1010.2	0.0 ÷ 1.0
27/04/2023	19:00	00:09:52	40.6	0.9	7.23	133.87	13.4	50	1010.2	0.0 ÷ 1.0
27/04/2023	19:10	00:10:00	38.1	0.9	6.56	132.27	13.2	51	1010.2	0.0 ÷ 1.0
27/04/2023	19:20	00:07:45	38.5	0.9	4.70	130.08	12.9	52	1010.3	0.0 ÷ 1.0

**TABELLA 3**  
**Riordino Livello di rumore residuo - Periodo Diurno**

Data [gg/mm/aaaa]	Ore [hh:mm]	Durata effettiva intervallo [hh:mm:ss]	L <sub>R</sub> [dB(A)]	v <sub>r</sub> [m/s]	V [m/s]	θ [°]	Temp. [°C]	Umid. [%]	Press. [Bar]	Classe di v <sub>r</sub> [m/s]
27/04/2023	19:30	00:09:23	36.5	0.9	7.18	128.30	12.6	53	1010.4	0.0 ÷ 1.0
27/04/2023	19:40	00:10:00	35.5	0.9	4.85	124.18	12.3	53	1010.4	0.0 ÷ 1.0
27/04/2023	19:50	00:09:23	35.8	0.9	7.84	127.23	12	55	1010.4	0.0 ÷ 1.0
27/04/2023	20:10	00:10:00	36.1	0.9	5.44	127.64	11.6	55	1010.4	0.0 ÷ 1.0
27/04/2023	20:20	00:10:00	36	0.9	6.76	129.13	11.3	55	1010.4	0.0 ÷ 1.0
27/04/2023	20:40	00:10:00	33.6	0.9	7.46	132.17	11.1	55	1010.6	0.0 ÷ 1.0
27/04/2023	20:50	00:10:00	35.4	0.9	7.20	133.31	11.1	55	1010.6	0.0 ÷ 1.0
27/04/2023	21:00	00:10:00	34.6	0.9	7.67	133.31	11.1	53	1010.6	0.0 ÷ 1.0
27/04/2023	21:10	00:10:00	32.9	0.9	8.05	133.40	11.1	50	1010.6	0.0 ÷ 1.0
27/04/2023	21:30	00:10:00	33.8	0.9	8.25	130.98	11.1	45	1010.9	0.0 ÷ 1.0
27/04/2023	21:50	00:10:00	33.5	0.9	8.22	131.34	11	44	1011.3	0.0 ÷ 1.0
28/04/2023	07:50	00:10:00	41.2	0.9	9.48	145.86	11.3	52	1011.7	0.0 ÷ 1.0
28/04/2023	08:00	00:10:00	41.9	0.9	9.57	147.24	11.5	53	1011.7	0.0 ÷ 1.0
28/04/2023	08:10	00:10:00	42.4	0.9	9.18	149.53	12.2	52	1011.6	0.0 ÷ 1.0
28/04/2023	08:20	00:10:00	41.1	0.9	8.84	145.20	12.2	51	1011.6	0.0 ÷ 1.0
28/04/2023	08:40	00:09:19	42.3	0.9	9.34	144.64	12.2	51	1011.7	0.0 ÷ 1.0
28/04/2023	08:50	00:09:56	43.8	0.9	9.54	143.67	12.1	52	1011.8	0.0 ÷ 1.0
28/04/2023	09:10	00:09:26	44.2	0.9	9.58	141.96	11.9	54	1011.7	0.0 ÷ 1.0
28/04/2023	10:00	00:09:37	43.2	0.9	7.98	140.23	13.8	49	1011.7	0.0 ÷ 1.0
28/04/2023	18:10	00:09:45	40.7	0.9	11.92	139.00	12.7	74	1009.7	0.0 ÷ 1.0
28/04/2023	18:20	00:10:00	40.9	0.9	11.90	136.84	12.5	76	1010	0.0 ÷ 1.0
28/04/2023	19:20	00:10:00	41.9	0.9	12.62	138.60	11.1	83	1009.6	0.0 ÷ 1.0
29/04/2023	06:00	00:08:34	44.6	0.9	6.91	132.78	9.4	94	1006.9	0.0 ÷ 1.0
29/04/2023	06:20	00:08:48	43.7	0.9	6.91	140.33	9.4	94	1007	0.0 ÷ 1.0
29/04/2023	06:30	00:08:50	42.8	0.9	6.63	141.56	9.4	94	1007	0.0 ÷ 1.0
29/04/2023	06:40	00:08:47	42.7	0.9	7.96	146.17	9.4	94	1007.3	0.0 ÷ 1.0
29/04/2023	06:50	00:09:48	42.4	0.9	8.20	143.18	9.4	94	1007.4	0.0 ÷ 1.0
29/04/2023	07:00	00:09:20	44.5	0.9	7.36	143.48	9.5	94	1007.7	0.0 ÷ 1.0
29/04/2023	07:10	00:10:00	39.5	0.9	7.07	138.54	9.5	94	1007.8	0.0 ÷ 1.0
29/04/2023	07:40	00:08:32	44.7	0.9	4.61	140.53	9.8	94	1007.4	0.0 ÷ 1.0
29/04/2023	08:10	00:09:50	44.1	0.9	4.39	141.71	9.9	94	1007.1	0.0 ÷ 1.0
29/04/2023	08:30	00:10:00	40.5	0.9	4.62	139.72	9.9	94	1007.6	0.0 ÷ 1.0
29/04/2023	08:40	00:10:00	40.7	0.9	4.21	133.17	10.1	94	1007.4	0.0 ÷ 1.0
29/04/2023	08:50	00:08:55	43.2	0.9	3.66	127.78	10.2	93	1007.6	0.0 ÷ 1.0
29/04/2023	09:10	00:10:00	42.1	0.9	4.14	134.99	10.3	93	1007.9	0.0 ÷ 1.0
29/04/2023	09:20	00:10:00	43.7	0.9	4.26	134.95	10.4	93	1008	0.0 ÷ 1.0
29/04/2023	09:30	00:10:00	41.5	0.9	4.14	134.74	10.4	93	1008.2	0.0 ÷ 1.0
29/04/2023	10:50	00:08:37	43.6	0.9	3.95	138.14	10.8	92	1008.1	0.0 ÷ 1.0
29/04/2023	11:10	00:10:00	42.9	0.9	3.71	143.51	11.1	92	1007.9	0.0 ÷ 1.0
29/04/2023	11:40	00:09:12	44.6	0.9	4.85	129.83	11.3	91	1008.1	0.0 ÷ 1.0
29/04/2023	11:50	00:09:18	41.4	0.9	4.71	134.43	11.7	90	1008.2	0.0 ÷ 1.0
29/04/2023	12:10	00:09:41	42.5	0.9	4.87	136.98	12.1	89	1008	0.0 ÷ 1.0
29/04/2023	12:30	00:09:01	42.7	0.9	5.26	135.57	12.7	89	1007.9	0.0 ÷ 1.0
29/04/2023	13:00	00:08:47	43.9	0.9	5.07	134.65	13.2	84	1007.9	0.0 ÷ 1.0
29/04/2023	13:10	00:09:17	41.4	0.9	5.15	134.51	12.9	87	1008	0.0 ÷ 1.0
29/04/2023	13:20	00:08:43	41.5	0.9	5.51	139.12	12.7	87	1007.7	0.0 ÷ 1.0
29/04/2023	13:30	00:10:00	42.9	0.9	5.38	140.26	12.9	87	1007.7	0.0 ÷ 1.0
29/04/2023	14:10	00:10:00	43.5	0.9	4.65	133.53	14.1	83	1007.7	0.0 ÷ 1.0
30/04/2023	06:00	00:09:35	46.9	0.9	3.87	8.47	10.3	96	1006.5	0.0 ÷ 1.0
30/04/2023	06:10	00:08:04	44.1	0.9	4.14	29.04	10.2	96	1006.6	0.0 ÷ 1.0
30/04/2023	06:50	00:09:37	44.3	0.9	5.15	24.72	10.1	96	1006.7	0.0 ÷ 1.0
30/04/2023	07:00	00:08:55	44.2	0.9	5.30	39.99	10.1	96	1006.7	0.0 ÷ 1.0
30/04/2023	07:20	00:09:41	40.5	0.9	6.03	31.55	10.1	97	1006.8	0.0 ÷ 1.0

**TABELLA 3**  
**Riordino Livello di rumore residuo - Periodo Diurno**

Data [gg/mm/aaaa]	Ore [hh:mm]	Durata effettiva intervallo [hh:mm:ss]	L <sub>R</sub> [dB(A)]	v <sub>r</sub> [m/s]	V [m/s]	θ [°]	Temp. [°C]	Umid. [%]	Press. [Bar]	Classe di v <sub>r</sub> [m/s]
30/04/2023	07:30	00:08:25	41.7	0.9	5.88	27.33	10.2	96	1006.7	0.0 ÷ 1.0
30/04/2023	09:00	00:10:00	43.6	0.9	5.17	29.29	10.2	97	1007.1	0.0 ÷ 1.0
30/04/2023	09:50	00:10:00	42.9	0.9	6.36	24.55	10.8	97	1007.2	0.0 ÷ 1.0
30/04/2023	19:30	00:08:42	36.4	0.9	6.99	73.43	12.6	81	1005.7	0.0 ÷ 1.0
30/04/2023	19:40	00:08:40	39.7	0.9	8.99	84.13	12.4	83	1005.6	0.0 ÷ 1.0
01/05/2023	06:50	00:09:11	40.7	0.9	7.54	67.70	9.6	83	1005.8	0.0 ÷ 1.0
01/05/2023	08:50	00:09:03	40.2	0.9	5.99	63.78	8.8	95	1006.2	0.0 ÷ 1.0
01/05/2023	09:30	00:10:00	40.7	0.9	5.58	70.59	8.8	96	1006.4	0.0 ÷ 1.0
27/04/2023	12:10	00:09:45	42.8	1.3	5.28	129.77	15.9	30	1010.6	1.0 ÷ 2.0
27/04/2023	12:20	00:10:00	36.1	1.3	5.20	141.83	15.7	30	1010.7	1.0 ÷ 2.0
27/04/2023	12:30	00:10:00	38.9	1.3	5.61	133.78	15.8	33	1010.7	1.0 ÷ 2.0
27/04/2023	12:40	00:09:58	40.2	1.3	5.51	135.17	16.1	35	1010.3	1.0 ÷ 2.0
27/04/2023	12:50	00:09:22	41.9	1.3	6.00	134.72	16.2	35	1010.5	1.0 ÷ 2.0
27/04/2023	13:00	00:09:31	39.5	1.3	6.08	136.95	16.1	34	1010.5	1.0 ÷ 2.0
27/04/2023	13:10	00:09:51	39.1	1.3	6.27	128.47	16.2	34	1010.4	1.0 ÷ 2.0
27/04/2023	13:20	00:10:00	40.2	1.3	7.07	136.23	16.1	34	1010.4	1.0 ÷ 2.0
27/04/2023	13:30	00:09:29	41.3	1.3	7.42	139.27	16.2	34	1010.4	1.0 ÷ 2.0
27/04/2023	13:40	00:09:34	39.1	1.3	6.52	137.52	15.9	35	1010.5	1.0 ÷ 2.0
27/04/2023	14:00	00:10:00	41.9	1.3	5.99	140.92	16.8	34	1010.4	1.0 ÷ 2.0
27/04/2023	14:10	00:09:34	39.9	1.3	6.59	142.44	16.8	35	1010.5	1.0 ÷ 2.0
27/04/2023	14:40	00:10:00	43.1	1.3	7.04	141.15	16.8	35	1010.3	1.0 ÷ 2.0
27/04/2023	15:50	00:09:19	44	1.3	6.74	142.11	16.2	40	1010.4	1.0 ÷ 2.0
27/04/2023	16:00	00:10:00	42.1	1.3	6.95	142.72	15.8	40	1010.3	1.0 ÷ 2.0
27/04/2023	16:20	00:10:00	44.2	1.3	7.05	145.64	15.4	37	1010.4	1.0 ÷ 2.0
27/04/2023	16:40	00:07:50	43.5	1.3	7.15	136.16	15.1	40	1010.4	1.0 ÷ 2.0
27/04/2023	17:00	00:10:00	44.1	1.3	7.67	136.87	15.1	40	1010.4	1.0 ÷ 2.0
27/04/2023	17:10	00:08:08	43.6	1.3	7.56	136.24	15.2	37	1010.4	1.0 ÷ 2.0
27/04/2023	17:30	00:09:27	42.4	1.3	7.41	134.27	15	41	1010.4	1.0 ÷ 2.0
27/04/2023	17:40	00:09:42	41.2	1.3	7.40	133.30	15	41	1010.2	1.0 ÷ 2.0
27/04/2023	20:00	00:10:00	34.3	1.3	7.34	126.48	11.7	55	1010.4	1.0 ÷ 2.0
27/04/2023	20:30	00:10:00	34.5	1.3	7.44	128.95	11.2	55	1010.3	1.0 ÷ 2.0
28/04/2023	08:30	00:10:00	41.7	1.3	8.81	143.59	12.3	51	1011.8	1.0 ÷ 2.0
28/04/2023	09:00	00:10:00	41.9	1.3	9.37	141.94	12.1	54	1011.8	1.0 ÷ 2.0
28/04/2023	09:20	00:09:53	43.2	1.3	8.50	141.20	12.1	52	1011.6	1.0 ÷ 2.0
28/04/2023	09:30	00:09:10	44.3	1.3	8.22	139.39	12.6	52	1011.4	1.0 ÷ 2.0
28/04/2023	09:40	00:09:51	43.1	1.3	8.43	144.41	13	52	1011.8	1.0 ÷ 2.0
28/04/2023	09:50	00:09:47	42.4	1.3	8.06	138.10	13.4	51	1011.8	1.0 ÷ 2.0
28/04/2023	10:10	00:09:52	42.4	1.3	9.06	139.03	14.1	50	1011.7	1.0 ÷ 2.0
28/04/2023	10:20	00:10:00	43	1.3	9.18	138.56	14.1	50	1011.9	1.0 ÷ 2.0
28/04/2023	10:30	00:09:55	45.4	1.3	9.92	141.67	14	51	1011.7	1.0 ÷ 2.0
28/04/2023	10:50	00:10:00	45.6	1.3	8.96	140.76	13.8	49	1011.8	1.0 ÷ 2.0
28/04/2023	14:00	00:09:54	43.4	1.3	9.55	146.92	15.1	58	1011.5	1.0 ÷ 2.0
28/04/2023	15:30	00:09:04	45.7	1.3	10.87	145.60	14.1	61	1010.7	1.0 ÷ 2.0
28/04/2023	15:50	00:09:13	43.4	1.3	10.19	142.63	14.5	63	1010.6	1.0 ÷ 2.0
28/04/2023	16:30	00:09:14	43.7	1.3	9.08	145.27	14.2	65	1010.2	1.0 ÷ 2.0
28/04/2023	16:40	00:09:49	45.8	1.3	9.66	141.36	14.2	65	1010.1	1.0 ÷ 2.0
28/04/2023	17:00	00:09:52	44	1.3	10.74	143.60	14	66	1009.9	1.0 ÷ 2.0
28/04/2023	17:30	00:09:12	42.3	1.3	10.50	143.36	13.4	70	1009.4	1.0 ÷ 2.0
28/04/2023	17:40	00:08:22	43.4	1.3	10.81	141.74	13.2	70	1009.7	1.0 ÷ 2.0
28/04/2023	18:00	00:09:47	38.1	1.3	11.93	141.97	12.8	73	1009.8	1.0 ÷ 2.0
28/04/2023	18:50	00:09:48	40.3	1.3	13.37	140.38	11.7	80	1009.6	1.0 ÷ 2.0
28/04/2023	19:00	00:10:00	39.4	1.3	12.59	137.79	11.4	82	1009.6	1.0 ÷ 2.0
28/04/2023	19:10	00:10:00	39.3	1.3	12.83	136.39	11.2	83	1009.6	1.0 ÷ 2.0

**TABELLA 3**  
**Riordino Livello di rumore residuo - Periodo Diurno**

Data [gg/mm/aaaa]	Ore [hh:mm]	Durata effettiva intervallo [hh:mm:ss]	L <sub>R</sub> [dB(A)]	v <sub>r</sub> [m/s]	V [m/s]	θ [°]	Temp. [°C]	Umid. [%]	Press. [Bar]	Classe di v <sub>r</sub> [m/s]
28/04/2023	19:30	00:10:00	43.4	1.3	11.91	141.02	10.8	84	1009.5	1.0 + 2.0
28/04/2023	19:40	00:09:47	40.7	1.3	11.73	139.41	10.7	85	1009.4	1.0 + 2.0
28/04/2023	19:50	00:09:47	39.5	1.3	11.14	141.63	10.6	85	1009.1	1.0 + 2.0
28/04/2023	20:00	00:10:00	40.3	1.3	10.67	140.10	10.4	86	1009.1	1.0 + 2.0
28/04/2023	20:10	00:10:00	43.8	1.3	11.00	140.68	10.3	86	1009.2	1.0 + 2.0
28/04/2023	20:30	00:10:00	43.9	1.3	11.21	141.00	10.1	86	1009.4	1.0 + 2.0
28/04/2023	21:10	00:10:00	41.8	1.3	11.71	141.56	9.8	87	1009.6	1.0 + 2.0
28/04/2023	21:40	00:10:00	36.5	1.3	11.15	136.89	9.7	87	1009.6	1.0 + 2.0
28/04/2023	21:50	00:10:00	34.3	1.3	11.29	133.13	9.8	88	1009.9	1.0 + 2.0
29/04/2023	06:10	00:09:07	45.2	1.3	7.18	134.43	9.4	94	1006.8	1.0 + 2.0
29/04/2023	08:20	00:09:20	39.7	1.3	4.87	138.34	9.9	94	1007.4	1.0 + 2.0
29/04/2023	11:20	00:09:33	41.9	1.3	3.90	132.54	11.3	92	1008	1.0 + 2.0
29/04/2023	11:30	00:09:35	44.4	1.3	4.48	131.27	11.3	91	1008.2	1.0 + 2.0
29/04/2023	12:00	00:10:00	38.9	1.3	5.19	134.78	11.8	89	1007.9	1.0 + 2.0
29/04/2023	12:20	00:09:38	41.3	1.3	4.72	138.56	12.4	88	1008	1.0 + 2.0
29/04/2023	12:40	00:09:54	41.2	1.3	4.81	133.21	13.2	86	1007.9	1.0 + 2.0
29/04/2023	12:50	00:09:19	42.6	1.3	5.06	133.46	13.1	85	1007.9	1.0 + 2.0
29/04/2023	13:40	00:10:00	43	1.3	5.12	139.91	13.7	85	1007.7	1.0 + 2.0
29/04/2023	13:50	00:10:00	40.3	1.3	5.24	138.25	13.6	83	1007.7	1.0 + 2.0
29/04/2023	14:00	00:10:00	41.5	1.3	5.36	135.27	13.6	84	1007.7	1.0 + 2.0
29/04/2023	14:20	00:09:51	44.7	1.3	5.37	130.71	13.8	84	1007.7	1.0 + 2.0
29/04/2023	14:30	00:04:49	45	1.3	5.77	134.34	13.7	83	1007.6	1.0 + 2.0
29/04/2023	14:40	00:08:07	45.8	1.3	5.14	129.44	13.3	85	1007.7	1.0 + 2.0
29/04/2023	15:00	00:10:00	46	1.3	6.37	123.27	12.5	88	1007.4	1.0 + 2.0
29/04/2023	16:30	00:09:17	46.9	1.3	4.44	121.14	11.8	91	1006.8	1.0 + 2.0
30/04/2023	06:20	00:06:32	45.1	1.3	6.05	40.90	10.2	96	1006.6	1.0 + 2.0
30/04/2023	06:30	00:07:46	43.1	1.3	7.12	45.98	10.2	96	1006.6	1.0 + 2.0
30/04/2023	06:40	00:08:12	39.7	1.3	7.09	40.96	10.1	96	1006.6	1.0 + 2.0
30/04/2023	07:10	00:08:48	42.8	1.3	5.99	33.21	10.1	97	1006.7	1.0 + 2.0
30/04/2023	08:00	00:10:00	46.9	1.3	5.45	21.40	10	97	1006.8	1.0 + 2.0
30/04/2023	08:10	00:10:00	44.3	1.3	6.14	22.28	10	97	1006.7	1.0 + 2.0
30/04/2023	08:20	00:10:00	40.1	1.3	5.57	27.05	10	96	1006.9	1.0 + 2.0
30/04/2023	08:30	00:09:26	41.7	1.3	5.53	21.46	10.1	97	1006.8	1.0 + 2.0
30/04/2023	08:40	00:08:44	40.6	1.3	5.88	22.85	10.1	97	1006.9	1.0 + 2.0
30/04/2023	08:50	00:09:48	43.6	1.3	5.64	14.76	10.1	97	1007	1.0 + 2.0
30/04/2023	09:10	00:10:00	46.7	1.3	6.01	25.70	10.2	97	1007.1	1.0 + 2.0
30/04/2023	09:30	00:10:00	42.1	1.3	6.34	22.92	10.2	97	1007.2	1.0 + 2.0
30/04/2023	10:00	00:10:00	43.5	1.3	6.21	25.94	10.7	97	1007.3	1.0 + 2.0
30/04/2023	10:20	00:09:20	42.9	1.3	7.08	22.03	10.8	96	1007.3	1.0 + 2.0
30/04/2023	10:30	00:09:36	42.7	1.3	7.55	20.90	11.1	95	1007.2	1.0 + 2.0
30/04/2023	11:00	00:09:39	46	1.3	7.53	23.72	12.4	88	1007.3	1.0 + 2.0
30/04/2023	18:50	00:09:10	39.4	1.3	8.49	51.03	13.1	79	1005.6	1.0 + 2.0
30/04/2023	19:20	00:10:00	39.3	1.3	5.80	60.56	12.7	80	1005.7	1.0 + 2.0
30/04/2023	19:50	00:10:00	40	1.3	11.07	86.78	12.2	84	1005.7	1.0 + 2.0
30/04/2023	20:20	00:09:31	36.5	1.3	11.34	84.33	11.8	85	1006.1	1.0 + 2.0
30/04/2023	20:30	00:10:00	36.4	1.3	10.52	84.02	11.7	86	1006.1	1.0 + 2.0
30/04/2023	20:40	00:09:56	38	1.3	10.18	73.33	11.6	86	1006.2	1.0 + 2.0
30/04/2023	21:00	00:10:00	36.4	1.3	9.88	83.52	11.5	85	1006.2	1.0 + 2.0
30/04/2023	21:10	00:10:00	35.6	1.3	7.30	74.27	11.4	86	1006.4	1.0 + 2.0
30/04/2023	21:30	00:09:27	34.4	1.3	6.17	86.27	11.3	87	1006.4	1.0 + 2.0
30/04/2023	21:40	00:10:00	33.5	1.3	7.19	99.21	11.2	88	1006.4	1.0 + 2.0
01/05/2023	07:00	00:09:01	41.4	1.3	7.19	66.35	9.4	85	1005.6	1.0 + 2.0
01/05/2023	07:10	00:08:55	41.6	1.3	7.27	68.50	9.2	87	1005.7	1.0 + 2.0



**TABELLA 3**  
**Riordino Livello di rumore residuo - Periodo Diurno**

Data [gg/mm/aaaa]	Ore [hh:mm]	Durata effettiva intervallo [hh:mm:ss]	L <sub>R</sub> [dB(A)]	v <sub>r</sub> [m/s]	V [m/s]	θ [°]	Temp. [°C]	Umid. [%]	Press. [Bar]	Classe di v <sub>r</sub> [m/s]
01/05/2023	07:30	00:08:50	43.1	1.3	6.28	71.64	8.9	90	1005.7	1.0 + 2.0
01/05/2023	07:40	00:09:25	45.4	1.3	7.85	76.00	8.9	91	1005.9	1.0 + 2.0
01/05/2023	07:50	00:09:36	44.2	1.3	6.11	72.15	8.8	92	1006	1.0 + 2.0
01/05/2023	08:00	00:08:50	42.9	1.3	4.31	59.81	8.8	93	1006	1.0 + 2.0
01/05/2023	08:10	00:09:45	42.4	1.3	5.11	55.03	8.7	94	1006.1	1.0 + 2.0
01/05/2023	09:10	00:09:36	41.3	1.3	6.56	74.51	8.9	96	1006.2	1.0 + 2.0
01/05/2023	09:40	00:10:00	37.7	1.3	6.85	78.53	8.8	96	1006.4	1.0 + 2.0
01/05/2023	10:20	00:10:00	39.4	1.3	6.00	49.05	8.7	96	1006.3	1.0 + 2.0
01/05/2023	10:30	00:10:00	39.6	1.3	5.17	48.97	8.7	96	1006.4	1.0 + 2.0
01/05/2023	11:00	00:10:00	39	1.3	4.99	43.30	8.8	96	1006.5	1.0 + 2.0
02/05/2023	16:20	00:09:15	44.8	1.3	8.87	12.68	8.6	98	1009.4	1.0 + 2.0
02/05/2023	19:10	00:09:13	40.4	1.3	10.39	17.68	8.6	98	1009.6	1.0 + 2.0
02/05/2023	19:20	00:09:42	44.9	1.3	9.36	17.31	8.5	98	1009.8	1.0 + 2.0
02/05/2023	20:00	00:09:54	39.8	1.3	9.08	12.28	8.4	98	1010.1	1.0 + 2.0
02/05/2023	20:10	00:10:00	41.9	1.3	7.57	5.92	8.4	98	1010.3	1.0 + 2.0
02/05/2023	20:20	00:10:00	46.1	1.3	7.70	358.62	8.3	98	1010.4	1.0 + 2.0
03/05/2023	09:00	00:10:00	44.9	1.3	8.06	18.60	7.5	98	1013.7	1.0 + 2.0
03/05/2023	09:20	00:08:24	45.4	1.3	8.08	22.50	7.6	98	1014	1.0 + 2.0
03/05/2023	09:40	00:09:34	43.3	1.3	7.54	24.69	7.7	98	1014	1.0 + 2.0
03/05/2023	09:50	00:09:55	45.3	1.3	7.31	19.83	7.7	98	1014	1.0 + 2.0
03/05/2023	10:00	00:07:53	45.1	1.3	6.69	15.11	7.8	98	1014.1	1.0 + 2.0
27/04/2023	14:20	00:09:43	41	1.8	6.58	139.88	16.4	34	1010.4	1.0 + 2.0
27/04/2023	14:30	00:10:00	42.8	1.8	7.04	141.78	16.7	35	1010.4	1.0 + 2.0
27/04/2023	14:50	00:09:23	46.5	1.8	6.75	140.53	16.6	34	1010.3	1.0 + 2.0
27/04/2023	15:00	00:09:24	42.3	1.8	7.02	139.87	16.6	38	1010.3	1.0 + 2.0
27/04/2023	15:10	00:10:00	42.7	1.8	7.29	138.30	16.8	37	1010.1	1.0 + 2.0
27/04/2023	15:20	00:10:00	43.4	1.8	7.07	140.77	16.8	35	1010.4	1.0 + 2.0
27/04/2023	17:20	00:07:57	44.7	1.8	7.37	133.51	15	39	1010.4	1.0 + 2.0
28/04/2023	10:40	00:10:00	44.9	1.8	9.94	141.83	13.7	50	1011.8	1.0 + 2.0
28/04/2023	11:20	00:08:06	45.4	1.8	8.93	144.26	14.1	48	1011.9	1.0 + 2.0
28/04/2023	11:30	00:09:11	45.3	1.8	8.59	144.73	14.2	52	1012.1	1.0 + 2.0
28/04/2023	11:40	00:09:55	46.5	1.8	8.69	141.48	14.4	50	1012.1	1.0 + 2.0
28/04/2023	11:50	00:10:00	47	1.8	9.66	145.72	14.4	53	1012.2	1.0 + 2.0
28/04/2023	12:10	00:09:47	44.6	1.8	9.69	146.45	14.5	56	1012	1.0 + 2.0
28/04/2023	12:40	00:09:36	43.9	1.8	10.13	142.93	14.7	55	1011.7	1.0 + 2.0
28/04/2023	12:50	00:10:00	47.1	1.8	10.03	145.55	14.7	57	1011.9	1.0 + 2.0
28/04/2023	13:10	00:09:48	45.8	1.8	9.79	143.55	14.7	59	1011.6	1.0 + 2.0
28/04/2023	13:20	00:09:53	45.5	1.8	9.73	142.63	14.9	56	1011.6	1.0 + 2.0
28/04/2023	13:40	00:10:00	44.4	1.8	9.67	145.97	14.9	56	1011.7	1.0 + 2.0
28/04/2023	14:10	00:09:36	45.3	1.8	9.36	142.59	14.7	58	1011.3	1.0 + 2.0
28/04/2023	14:20	00:09:38	47	1.8	9.48	140.74	14.4	59	1011.3	1.0 + 2.0
28/04/2023	15:00	00:09:53	44	1.8	10.01	147.00	14.1	59	1011.1	1.0 + 2.0
28/04/2023	15:10	00:09:54	44.5	1.8	10.69	146.34	14.1	61	1010.8	1.0 + 2.0
28/04/2023	15:20	00:09:53	42.9	1.8	10.73	145.24	14	61	1010.8	1.0 + 2.0
28/04/2023	15:40	00:09:37	43.5	1.8	11.10	144.03	14.2	62	1010.5	1.0 + 2.0
28/04/2023	16:00	00:09:13	47.2	1.8	9.41	141.46	14.6	63	1010.5	1.0 + 2.0
28/04/2023	16:20	00:09:04	43.3	1.8	9.20	145.70	14.3	65	1010.2	1.0 + 2.0
28/04/2023	16:50	00:08:03	43.3	1.8	9.85	142.98	14.1	65	1009.9	1.0 + 2.0
28/04/2023	17:10	00:08:55	43.3	1.8	10.41	143.14	13.8	67	1009.7	1.0 + 2.0
28/04/2023	17:20	00:09:43	41.1	1.8	10.77	143.60	13.6	68	1009.4	1.0 + 2.0
28/04/2023	17:50	00:10:00	39.2	1.8	11.33	142.17	12.9	72	1009.8	1.0 + 2.0
28/04/2023	18:30	00:09:30	41.3	1.8	12.12	142.93	12.2	77	1009.8	1.0 + 2.0
28/04/2023	18:40	00:09:32	41.5	1.8	11.99	140.31	11.9	80	1009.6	1.0 + 2.0

**TABELLA 3**  
**Riordino Livello di rumore residuo - Periodo Diurno**

Data [gg/mm/aaaa]	Ore [hh:mm]	Durata effettiva intervallo [hh:mm:ss]	L <sub>R</sub> [dB(A)]	v <sub>r</sub> [m/s]	V [m/s]	θ [°]	Temp. [°C]	Umid. [%]	Press. [Bar]	Classe di v <sub>r</sub> [m/s]
28/04/2023	20:20	00:10:00	40.7	1.8	11.09	136.25	10.2	86	1009.5	1.0 + 2.0
28/04/2023	20:50	00:10:00	43.4	1.8	11.11	139.88	9.8	87	1009.2	1.0 + 2.0
28/04/2023	21:00	00:10:00	39.3	1.8	11.42	137.95	9.8	88	1009.5	1.0 + 2.0
28/04/2023	21:20	00:10:00	42.2	1.8	12.17	136.99	9.8	86	1009.6	1.0 + 2.0
28/04/2023	21:30	00:10:00	37.9	1.8	11.98	134.68	9.7	86	1009.5	1.0 + 2.0
29/04/2023	14:50	00:09:43	46.8	1.8	5.76	128.31	12.6	87	1007.5	1.0 + 2.0
29/04/2023	15:10	00:09:49	43.7	1.8	5.94	118.59	12.5	88	1007.2	1.0 + 2.0
29/04/2023	15:20	00:09:42	43.4	1.8	6.27	121.74	12.4	88	1007.2	1.0 + 2.0
29/04/2023	15:30	00:10:00	45.7	1.8	5.92	126.23	12.3	89	1007.2	1.0 + 2.0
29/04/2023	15:40	00:10:00	46.4	1.8	5.05	130.58	11.8	90	1007.1	1.0 + 2.0
29/04/2023	15:50	00:09:39	45.8	1.8	5.97	128.24	12.1	90	1007	1.0 + 2.0
29/04/2023	16:00	00:09:33	45.1	1.8	6.29	127.81	12	90	1007	1.0 + 2.0
29/04/2023	16:10	00:10:00	44.1	1.8	5.34	129.92	11.8	90	1007	1.0 + 2.0
29/04/2023	16:20	00:10:00	44	1.8	5.35	119.74	11.6	91	1006.8	1.0 + 2.0
29/04/2023	16:40	00:09:25	44.3	1.8	3.77	115.06	11.9	91	1006.7	1.0 + 2.0
30/04/2023	09:20	00:10:00	42.6	1.8	6.42	20.03	10.2	97	1007	1.0 + 2.0
30/04/2023	09:40	00:10:00	40.9	1.8	6.21	30.64	10.3	97	1007.3	1.0 + 2.0
30/04/2023	10:10	00:10:00	45.9	1.8	7.16	28.37	10.7	96	1007.2	1.0 + 2.0
30/04/2023	10:40	00:09:17	43.6	1.8	8.00	23.28	11.4	91	1007.4	1.0 + 2.0
30/04/2023	10:50	00:09:54	44.3	1.8	7.43	31.88	11.7	91	1007.2	1.0 + 2.0
30/04/2023	11:40	00:09:01	44.9	1.8	8.41	28.00	12.3	87	1007.2	1.0 + 2.0
30/04/2023	16:00	00:10:00	41.9	1.8	7.74	43.65	14.1	75	1006.1	1.0 + 2.0
30/04/2023	16:40	00:08:42	43	1.8	6.75	34.35	13.9	75	1005.9	1.0 + 2.0
30/04/2023	17:30	00:09:20	42.6	1.8	4.86	34.60	13.8	75	1005.8	1.0 + 2.0
30/04/2023	17:40	00:09:54	41.2	1.8	6.34	36.18	13.8	76	1005.9	1.0 + 2.0
30/04/2023	17:50	00:09:15	42.9	1.8	7.38	41.58	13.6	76	1005.8	1.0 + 2.0
30/04/2023	18:00	00:08:57	39.5	1.8	7.94	37.81	13.5	77	1005.8	1.0 + 2.0
30/04/2023	18:10	00:09:47	41.8	1.8	7.53	47.63	13.4	77	1005.8	1.0 + 2.0
30/04/2023	18:30	00:10:00	40	1.8	8.45	42.62	13.4	77	1005.8	1.0 + 2.0
30/04/2023	18:40	00:10:00	38.3	1.8	7.31	42.93	13.2	78	1005.7	1.0 + 2.0
30/04/2023	19:00	00:09:46	38.7	1.8	7.50	57.59	12.9	79	1005.6	1.0 + 2.0
30/04/2023	19:10	00:10:00	38.9	1.8	6.63	55.48	12.8	79	1005.6	1.0 + 2.0
30/04/2023	20:00	00:10:00	38.4	1.8	11.77	86.11	12.1	85	1005.8	1.0 + 2.0
30/04/2023	20:10	00:10:00	37.8	1.8	11.38	85.82	11.9	85	1006	1.0 + 2.0
30/04/2023	20:50	00:10:00	36.9	1.8	8.57	74.44	11.6	85	1006.2	1.0 + 2.0
30/04/2023	21:20	00:10:00	37.8	1.8	6.83	81.34	11.3	86	1006.4	1.0 + 2.0
01/05/2023	07:20	00:10:00	42.2	1.8	6.14	66.51	9.1	89	1005.7	1.0 + 2.0
01/05/2023	08:20	00:10:00	39.7	1.8	5.20	57.86	8.7	94	1006	1.0 + 2.0
01/05/2023	10:00	00:10:00	36.8	1.8	6.71	62.10	8.7	96	1006.4	1.0 + 2.0
01/05/2023	10:40	00:10:00	42.9	1.8	4.09	42.74	8.8	96	1006.4	1.0 + 2.0
01/05/2023	10:50	00:10:00	37.9	1.8	4.32	55.74	8.8	96	1006.3	1.0 + 2.0
01/05/2023	12:10	00:10:00	40	1.8	6.47	39.96	8.8	96	1006.5	1.0 + 2.0
01/05/2023	15:10	00:10:00	44.5	1.8	7.72	46.98	8.4	97	1006	1.0 + 2.0
01/05/2023	16:50	00:10:00	44.9	1.8	6.20	33.79	8.1	97	1005.7	1.0 + 2.0
01/05/2023	19:40	00:10:00	38.4	1.8	8.92	18.30	7.5	97	1005.8	1.0 + 2.0
01/05/2023	20:00	00:10:00	42.3	1.8	8.35	20.07	7.5	97	1005.9	1.0 + 2.0
01/05/2023	20:20	00:10:00	43.2	1.8	9.71	20.21	7.5	97	1005.7	1.0 + 2.0
01/05/2023	20:50	00:10:00	39.7	1.8	8.50	13.65	7.4	97	1005.9	1.0 + 2.0
01/05/2023	21:00	00:10:00	43.2	1.8	7.96	12.86	7.5	97	1005.8	1.0 + 2.0
02/05/2023	14:50	00:09:34	47	1.8	10.39	17.15	8.2	98	1009.4	1.0 + 2.0
02/05/2023	16:00	00:10:00	43.7	1.8	6.92	11.28	8.6	98	1009.5	1.0 + 2.0
02/05/2023	16:10	00:10:00	41.6	1.8	7.15	14.64	8.5	98	1009.5	1.0 + 2.0
02/05/2023	16:30	00:10:00	48	1.8	9.79	4.71	8.8	98	1009.5	1.0 + 2.0

**TABELLA 3**  
**Riordino Livello di rumore residuo - Periodo Diurno**

Data [gg/mm/aaaa]	Ore [hh:mm]	Durata effettiva intervallo [hh:mm:ss]	L <sub>R</sub> [dB(A)]	v <sub>r</sub> [m/s]	V [m/s]	θ [°]	Temp. [°C]	Umid. [%]	Press. [Bar]	Classe di v <sub>r</sub> [m/s]
02/05/2023	17:20	00:10:00	47.8	1.8	9.26	26.56	9.1	98	1009.5	1.0 ÷ 2.0
02/05/2023	17:50	00:10:00	41.1	1.8	9.17	6.28	9.1	98	1009.3	1.0 ÷ 2.0
02/05/2023	18:00	00:10:00	43.9	1.8	9.02	9.20	9.2	98	1009.3	1.0 ÷ 2.0
02/05/2023	18:10	00:10:00	42.5	1.8	9.68	9.46	9.1	98	1009.3	1.0 ÷ 2.0
02/05/2023	18:20	00:08:23	50.9	1.8	9.35	7.24	9.3	98	1009.3	1.0 ÷ 2.0
02/05/2023	18:50	00:09:53	45.3	1.8	10.02	17.28	8.7	98	1009.6	1.0 ÷ 2.0
02/05/2023	19:00	00:09:31	40.6	1.8	10.25	11.91	8.5	98	1009.6	1.0 ÷ 2.0
02/05/2023	19:30	00:10:00	46.5	1.8	9.44	13.77	8.4	98	1009.9	1.0 ÷ 2.0
02/05/2023	19:40	00:10:00	42.9	1.8	8.69	15.45	8.4	98	1010	1.0 ÷ 2.0
02/05/2023	19:50	00:09:48	40.4	1.8	8.09	16.09	8.4	98	1010	1.0 ÷ 2.0
02/05/2023	20:40	00:09:50	45.2	1.8	7.48	6.12	8.3	98	1010.6	1.0 ÷ 2.0
02/05/2023	20:50	00:10:00	43.1	1.8	7.24	0.08	8.2	98	1010.8	1.0 ÷ 2.0
02/05/2023	21:00	00:10:00	44.2	1.8	8.00	4.12	8.2	98	1010.9	1.0 ÷ 2.0
02/05/2023	21:10	00:10:00	47.6	1.8	8.24	10.93	8.2	98	1010.9	1.0 ÷ 2.0
02/05/2023	21:30	00:09:54	44.7	1.8	8.19	9.69	8.2	98	1011	1.0 ÷ 2.0
02/05/2023	21:40	00:10:00	41.3	1.8	7.82	18.14	8.3	98	1011.1	1.0 ÷ 2.0
02/05/2023	21:50	00:10:00	45.5	1.8	8.25	18.66	8.3	98	1011.2	1.0 ÷ 2.0
03/05/2023	06:00	00:09:48	47.4	1.8	8.75	15.28	7.3	98	1012.4	1.0 ÷ 2.0
03/05/2023	06:20	00:08:59	49.2	1.8	8.53	10.92	7.2	98	1012.5	1.0 ÷ 2.0
03/05/2023	07:40	00:10:00	46.1	1.8	7.29	7.64	7.2	98	1013.2	1.0 ÷ 2.0
03/05/2023	08:10	00:09:49	48.8	1.8	6.99	13.24	7.2	98	1013.3	1.0 ÷ 2.0
03/05/2023	08:30	00:10:00	44.7	1.8	7.02	16.75	7.2	98	1013.4	1.0 ÷ 2.0
03/05/2023	08:40	00:10:00	43.7	1.8	7.33	22.83	7.3	98	1013.5	1.0 ÷ 2.0
03/05/2023	08:50	00:10:00	41.5	1.8	7.29	13.62	7.3	98	1013.7	1.0 ÷ 2.0
03/05/2023	09:10	00:10:00	43.5	1.8	8.93	21.75	7.5	98	1013.8	1.0 ÷ 2.0
03/05/2023	09:30	00:09:48	45.2	1.8	8.33	29.86	7.6	98	1014	1.0 ÷ 2.0
27/04/2023	15:30	00:10:00	43.9	2.2	7.03	139.05	16.8	36	1010.4	2.0 ÷ 3.0
27/04/2023	15:40	00:09:31	42.2	2.2	6.96	144.97	16.3	37	1010.3	2.0 ÷ 3.0
27/04/2023	16:30	00:08:13	40.6	2.2	7.09	143.47	15.1	36	1010.3	2.0 ÷ 3.0
27/04/2023	16:50	00:09:54	43.6	2.2	7.26	138.02	14.8	40	1010.4	2.0 ÷ 3.0
28/04/2023	11:00	00:10:00	44.5	2.2	8.22	143.13	13.9	49	1011.8	2.0 ÷ 3.0
28/04/2023	11:10	00:08:35	43.9	2.2	8.74	141.39	13.8	49	1012	2.0 ÷ 3.0
28/04/2023	12:00	00:09:49	42.7	2.2	9.35	142.04	14.2	54	1012	2.0 ÷ 3.0
28/04/2023	12:20	00:10:00	44.5	2.2	10.01	142.64	14.4	54	1011.9	2.0 ÷ 3.0
28/04/2023	12:30	00:09:20	44.3	2.2	10.17	142.38	14.7	55	1011.8	2.0 ÷ 3.0
28/04/2023	13:30	00:09:06	42.7	2.2	9.95	141.40	15.1	56	1011.6	2.0 ÷ 3.0
28/04/2023	13:50	00:09:31	40.9	2.2	9.53	146.83	15.1	57	1011.4	2.0 ÷ 3.0
28/04/2023	14:30	00:10:00	47.1	2.2	9.60	145.96	14.3	60	1011.3	2.0 ÷ 3.0
28/04/2023	14:40	00:08:11	48.5	2.2	10.14	146.21	14.2	58	1011.3	2.0 ÷ 3.0
28/04/2023	14:50	00:09:12	43.4	2.2	10.03	147.49	14.1	58	1011.1	2.0 ÷ 3.0
28/04/2023	20:40	00:10:00	41	2.2	11.09	139.64	9.9	87	1009.1	2.0 ÷ 3.0
30/04/2023	11:10	00:09:42	43.7	2.2	8.02	21.63	12.7	85	1007.4	2.0 ÷ 3.0
30/04/2023	11:20	00:09:54	45.5	2.2	8.66	24.94	12.5	86	1007	2.0 ÷ 3.0
30/04/2023	11:50	00:09:26	44.3	2.2	9.78	26.49	12.6	86	1007.2	2.0 ÷ 3.0
30/04/2023	12:10	00:10:00	45.8	2.2	8.63	26.89	13.2	84	1007.3	2.0 ÷ 3.0
30/04/2023	12:30	00:09:53	46.3	2.2	9.31	29.66	13.1	84	1007.3	2.0 ÷ 3.0
30/04/2023	12:40	00:08:50	45.2	2.2	8.87	22.59	13.2	84	1007.2	2.0 ÷ 3.0
30/04/2023	14:00	00:10:00	45.4	2.2	7.30	41.48	13.6	80	1006.7	2.0 ÷ 3.0
30/04/2023	14:10	00:10:00	48.1	2.2	8.93	46.24	13.8	79	1006.6	2.0 ÷ 3.0
30/04/2023	15:00	00:09:52	47	2.2	7.25	33.26	14.2	78	1006.4	2.0 ÷ 3.0
30/04/2023	15:40	00:10:00	41.6	2.2	7.44	30.15	13.8	78	1006.2	2.0 ÷ 3.0
30/04/2023	15:50	00:09:32	41.7	2.2	5.93	30.10	14	76	1006.1	2.0 ÷ 3.0
30/04/2023	16:10	00:10:00	44.3	2.2	7.21	41.70	14.2	73	1005.9	2.0 ÷ 3.0

**TABELLA 3**  
**Riordino Livello di rumore residuo - Periodo Diurno**

Data [gg/mm/aaaa]	Ore [hh:mm]	Durata effettiva intervallo [hh:mm:ss]	L <sub>R</sub> [dB(A)]	v <sub>r</sub> [m/s]	V [m/s]	θ [°]	Temp. [°C]	Umid. [%]	Press. [Bar]	Classe di v <sub>r</sub> [m/s]
30/04/2023	16:20	00:09:42	42	2.2	7.58	39.94	14.2	75	1005.9	2.0 ÷ 3.0
30/04/2023	16:30	00:10:00	42.9	2.2	6.98	34.61	14.1	75	1005.8	2.0 ÷ 3.0
30/04/2023	16:50	00:10:00	43.4	2.2	5.64	27.49	13.8	75	1005.9	2.0 ÷ 3.0
30/04/2023	17:00	00:10:00	41	2.2	7.20	33.04	13.8	76	1005.7	2.0 ÷ 3.0
30/04/2023	17:10	00:10:00	41	2.2	6.30	25.09	13.9	76	1005.8	2.0 ÷ 3.0
30/04/2023	17:20	00:10:00	40.7	2.2	5.88	30.35	13.9	75	1005.8	2.0 ÷ 3.0
30/04/2023	18:20	00:09:19	41.4	2.2	8.36	40.93	13.5	74	1005.8	2.0 ÷ 3.0
01/05/2023	21:40	00:10:00	49.8	2.2	8.96	19.46	7.4	97	1006.1	2.0 ÷ 3.0
02/05/2023	09:00	00:10:00	49.3	2.2	10.21	11.41	7	98	1007.3	2.0 ÷ 3.0
02/05/2023	09:40	00:10:00	48.9	2.2	10.60	16.86	7.2	98	1007.7	2.0 ÷ 3.0
02/05/2023	09:50	00:10:00	51.7	2.2	9.85	11.14	7.2	98	1007.8	2.0 ÷ 3.0
02/05/2023	10:10	00:10:00	50.3	2.2	10.15	14.68	7.2	98	1008	2.0 ÷ 3.0
02/05/2023	10:20	00:09:16	50.8	2.2	10.59	14.91	7.2	98	1008.1	2.0 ÷ 3.0
02/05/2023	10:30	00:10:00	49.1	2.2	12.41	20.15	7.2	98	1008	2.0 ÷ 3.0
02/05/2023	10:40	00:10:00	47.9	2.2	9.02	17.74	7.3	98	1008.1	2.0 ÷ 3.0
02/05/2023	10:50	00:10:00	49.8	2.2	9.56	21.23	7.3	98	1008.1	2.0 ÷ 3.0
02/05/2023	11:00	00:09:27	53.8	2.2	12.71	25.35	7.4	98	1008.2	2.0 ÷ 3.0
02/05/2023	11:30	00:09:11	51.3	2.2	9.75	21.38	7.6	98	1008.3	2.0 ÷ 3.0
02/05/2023	12:40	00:10:00	48.6	2.2	9.93	19.54	7.9	98	1008.5	2.0 ÷ 3.0
02/05/2023	13:20	00:10:00	52.6	2.2	9.20	11.86	8.1	98	1008.6	2.0 ÷ 3.0
02/05/2023	14:10	00:09:43	53.3	2.2	11.61	23.22	8.1	98	1009.3	2.0 ÷ 3.0
02/05/2023	14:40	00:10:00	45.9	2.2	10.50	23.04	8.1	98	1009.4	2.0 ÷ 3.0
02/05/2023	15:00	00:10:00	47.1	2.2	10.98	20.16	8.2	98	1009.5	2.0 ÷ 3.0
02/05/2023	15:10	00:10:00	46.7	2.2	11.24	20.07	8.3	98	1009.5	2.0 ÷ 3.0
02/05/2023	15:20	00:10:00	48.9	2.2	10.44	16.60	8.4	98	1009.4	2.0 ÷ 3.0
02/05/2023	15:30	00:10:00	48	2.2	9.42	19.54	8.4	98	1009.6	2.0 ÷ 3.0
02/05/2023	15:40	00:10:00	43.9	2.2	7.74	16.77	8.5	98	1009.4	2.0 ÷ 3.0
02/05/2023	16:50	00:10:00	48.5	2.2	9.29	32.61	8.7	98	1009.5	2.0 ÷ 3.0
02/05/2023	17:00	00:09:29	49.1	2.2	10.13	30.32	8.7	98	1009.5	2.0 ÷ 3.0
02/05/2023	17:10	00:09:54	46.4	2.2	10.47	25.80	8.8	98	1009.4	2.0 ÷ 3.0
02/05/2023	17:30	00:10:00	49.3	2.2	8.22	6.65	8.9	98	1009.5	2.0 ÷ 3.0
02/05/2023	17:40	00:09:28	44.2	2.2	9.15	7.31	9	98	1009.3	2.0 ÷ 3.0
02/05/2023	18:40	00:09:36	44.3	2.2	10.15	15.56	8.8	98	1009.4	2.0 ÷ 3.0
02/05/2023	20:30	00:10:00	46.6	2.2	7.62	2.15	8.3	98	1010.5	2.0 ÷ 3.0
02/05/2023	21:20	00:09:49	42.6	2.2	8.08	3.37	8.2	98	1011	2.0 ÷ 3.0
03/05/2023	06:10	00:09:20	47.1	2.2	7.97	15.50	7.2	98	1012.5	2.0 ÷ 3.0
03/05/2023	06:30	00:09:19	47.3	2.2	8.83	12.70	7.2	98	1012.6	2.0 ÷ 3.0
03/05/2023	06:40	00:10:00	49.8	2.2	7.77	13.43	7.2	98	1012.8	2.0 ÷ 3.0
03/05/2023	07:00	00:09:04	48	2.2	7.42	9.71	7.2	98	1013.1	2.0 ÷ 3.0
03/05/2023	07:10	00:10:00	47.6	2.2	6.62	9.46	7.2	98	1013	2.0 ÷ 3.0
03/05/2023	07:20	00:09:09	46.1	2.2	6.99	9.57	7.2	98	1013	2.0 ÷ 3.0
03/05/2023	07:30	00:10:00	47.8	2.2	6.84	11.12	7.2	98	1013.2	2.0 ÷ 3.0
03/05/2023	07:50	00:10:00	45.3	2.2	6.42	6.32	7.2	98	1013.2	2.0 ÷ 3.0
03/05/2023	08:20	00:09:17	45.4	2.2	7.42	17.02	7.2	98	1013.4	2.0 ÷ 3.0
28/04/2023	13:00	00:09:49	44.6	2.7	9.98	142.75	14.2	58	1011.7	2.0 ÷ 3.0
28/04/2023	16:10	00:10:00	44.7	2.7	9.17	142.98	14.3	63	1010.3	2.0 ÷ 3.0
30/04/2023	11:30	00:10:00	42.9	2.7	9.20	30.61	12.2	87	1007.1	2.0 ÷ 3.0
30/04/2023	12:00	00:10:00	44.6	2.7	7.69	29.28	12.7	87	1007.1	2.0 ÷ 3.0
30/04/2023	12:20	00:09:35	43.2	2.7	8.89	25.83	13.1	83	1007.3	2.0 ÷ 3.0
30/04/2023	12:50	00:10:00	44.8	2.7	7.51	30.68	13.3	83	1007	2.0 ÷ 3.0
30/04/2023	13:00	00:09:55	46.7	2.7	9.01	36.53	13.6	81	1006.9	2.0 ÷ 3.0
30/04/2023	13:20	00:10:00	46.7	2.7	8.50	38.54	13.2	82	1006.8	2.0 ÷ 3.0
30/04/2023	13:40	00:10:00	46.9	2.7	8.65	37.23	13.4	80	1006.9	2.0 ÷ 3.0



**TABELLA 3**  
**Riordino Livello di rumore residuo - Periodo Diurno**

Data [gg/mm/aaaa]	Ore [hh:mm]	Durata effettiva intervallo [hh:mm:ss]	L <sub>R</sub> [dB(A)]	v <sub>r</sub> [m/s]	V [m/s]	θ [°]	Temp. [°C]	Umid. [%]	Press. [Bar]	Classe di v <sub>r</sub> [m/s]
30/04/2023	13:50	00:10:00	44.9	2.7	8.60	45.76	13.5	80	1006.7	2.0 ÷ 3.0
30/04/2023	14:40	00:09:30	46.3	2.7	7.27	39.10	13.9	78	1006.5	2.0 ÷ 3.0
30/04/2023	14:50	00:10:00	42.8	2.7	7.72	35.18	13.9	79	1006.5	2.0 ÷ 3.0
30/04/2023	15:10	00:10:00	47	2.7	8.14	34.23	13.9	77	1006.5	2.0 ÷ 3.0
30/04/2023	15:20	00:10:00	44.7	2.7	8.18	32.34	14.1	77	1006.4	2.0 ÷ 3.0
30/04/2023	15:30	00:10:00	43.8	2.7	7.27	41.48	13.9	77	1006.3	2.0 ÷ 3.0
02/05/2023	11:20	00:09:31	50.8	2.7	11.66	16.74	7.5	98	1008.3	2.0 ÷ 3.0
02/05/2023	11:40	00:10:00	53.1	2.7	10.70	20.05	7.6	98	1008.6	2.0 ÷ 3.0
02/05/2023	11:50	00:10:00	50.7	2.7	12.53	9.56	7.6	98	1008.5	2.0 ÷ 3.0
02/05/2023	12:00	00:10:00	52.1	2.7	10.97	22.46	7.6	98	1008.6	2.0 ÷ 3.0
02/05/2023	12:20	00:10:00	50.7	2.7	10.59	17.10	7.8	98	1008.5	2.0 ÷ 3.0
02/05/2023	12:30	00:09:20	50.1	2.7	10.89	16.20	7.9	98	1008.5	2.0 ÷ 3.0
02/05/2023	14:00	00:09:04	48.5	2.7	9.35	25.55	8.1	98	1008.8	2.0 ÷ 3.0
02/05/2023	14:20	00:09:50	53.5	2.7	11.12	17.07	8.1	98	1009.4	2.0 ÷ 3.0
02/05/2023	14:30	00:10:00	49.5	2.7	11.30	19.48	8.1	98	1009.3	2.0 ÷ 3.0
02/05/2023	16:40	00:10:00	46.9	2.7	9.07	18.79	8.8	98	1009.5	2.0 ÷ 3.0
02/05/2023	18:30	00:10:00	49	2.7	10.87	13.94	9	98	1009.5	2.0 ÷ 3.0
30/04/2023	13:10	00:10:00	46.6	3.1	7.67	31.69	13.2	81	1006.9	3.0 ÷ 4.0
30/04/2023	13:30	00:10:00	47.1	3.1	7.15	36.40	13.4	82	1006.8	3.0 ÷ 4.0
30/04/2023	14:20	00:08:58	47.3	3.1	8.08	43.89	13.6	79	1006.6	3.0 ÷ 4.0
30/04/2023	14:30	00:10:00	46	3.1	7.98	39.54	13.6	80	1006.7	3.0 ÷ 4.0
02/05/2023	11:10	00:10:00	52.1	3.1	11.58	19.19	7.4	98	1008.3	3.0 ÷ 4.0

TABELLA 4

Calcolo del Livello di rumore residuo medio per classi di velocità - Periodo Diurno

Data [gg/mm/aaaa]	L <sub>R</sub> [dB(A)]	v <sub>r</sub> [m/s]	V [m/s]	Classe di v <sub>r</sub> [m/s]
dal 27/04/2023 al 01/05/2023	41.8	0.7	6.5	0.0 ÷ 1.0
dal 27/04/2023 al 03/05/2023	43.4	1.5	8.0	1.0 ÷ 2.0
dal 27/04/2023 al 28/04/2023 e dal 30/04/2023 al 03/05/2023	47.7	2.3	9.0	2.0 ÷ 3.0
30/04/2023 e 02/05/2023	48.5	3.1	8.5	3.0 ÷ 4.0
-	-	-	-	4.0 ÷ 5.0

**TABELLA 2**  
**Livello di rumore residuo - Periodo Notturno**

Data [gg/mm/aaaa]	Ore [hh:mm]	Durata effettiva intervallo [hh:mm:ss]	L <sub>R</sub> [dB(A)]	v <sub>r</sub> [m/s]	V [m/s]	θ [°]	Temp. [°C]	Umid. [%]	Press. [Bar]
27/04/2023	22:00	00:10:00	34.5	0.9	8.39	132.31	11.1	43	1011.3
27/04/2023	22:10	00:10:00	34.6	0.9	8.56	129.32	11.2	44	1011.6
27/04/2023	22:20	00:10:00	34.6	0.9	8.23	129.48	11	46	1011.5
27/04/2023	22:30	00:10:00	34.7	0.9	8.06	130.90	11.1	44	1011.6
27/04/2023	22:40	00:10:00	34	0.9	8.44	129.57	11	44	1011.5
27/04/2023	22:50	00:10:00	34.1	0.9	8.26	129.26	11	45	1011.4
27/04/2023	23:00	00:10:00	33.7	0.4	8.16	131.27	10.9	44	1011.4
27/04/2023	23:10	00:09:40	35	0	7.71	130.97	10.7	44	1011.4
27/04/2023	23:20	00:10:00	34	0.4	6.62	135.42	10.7	44	1011.3
27/04/2023	23:30	00:10:00	33.5	0.4	4.95	138.21	10.6	45	1011.3
27/04/2023	23:40	00:10:00	30.8	0.4	6.68	132.64	10.6	44	1011.3
27/04/2023	23:50	00:10:00	31.5	0	4.24	133.34	10.4	45	1011.2
28/04/2023	00:00	00:09:17	33.9	0.4	7.47	134.66	10.6	45	1011.2
28/04/2023	00:10	00:10:00	27.6	0.4	7.32	133.69	10.7	46	1011.5
28/04/2023	00:20	00:10:00	27	0	7.53	131.12	10.4	47	1011.8
28/04/2023	00:30	00:10:00	29.1	0.4	7.07	131.01	10.1	48	1011.7
28/04/2023	00:40	00:10:00	32.1	0.4	6.89	133.02	10.2	49	1011.8
28/04/2023	00:50	00:10:00	29.5	0.4	7.15	136.11	9.9	50	1012
28/04/2023	01:00	00:10:00	30.4	0.4	7.19	135.21	9.9	51	1012
28/04/2023	01:10	00:10:00	28.1	0	7.13	141.69	9.7	51	1011.9
28/04/2023	01:20	00:10:00	27.7	0	6.62	140.98	9.6	53	1011.8
28/04/2023	01:30	00:10:00	26.1	0	6.70	141.65	9.5	52	1011.8
28/04/2023	01:40	00:10:00	25.9	0	6.94	134.14	9.5	52	1011.9
28/04/2023	01:50	00:10:00	26.2	0	7.35	136.14	9.6	52	1011.7
28/04/2023	02:00	00:10:00	27.5	0	7.88	137.07	9.6	53	1011.5
28/04/2023	03:20	00:10:00	24.2	0	5.60	138.05	10.5	50	1011.3
28/04/2023	03:30	00:10:00	29.2	0	4.69	167.52	10.5	50	1011.4
28/04/2023	03:40	00:10:00	25.5	0	7.54	189.54	10.5	50	1011.4
28/04/2023	03:50	00:10:00	31.4	0	7.81	138.85	10.3	50	1011.3
28/04/2023	04:00	00:10:00	26.2	0	7.49	145.57	10.2	51	1011.3
28/04/2023	04:10	00:10:00	25.5	0	7.82	146.33	9.9	52	1011.2
28/04/2023	04:20	00:10:00	26.1	0	8.03	146.89	9.8	51	1011.1
28/04/2023	04:30	00:08:47	26.4	0	7.90	145.57	10.1	50	1011.3
28/04/2023	04:40	00:10:00	29.7	0.4	7.67	147.10	10.2	49	1011.1
28/04/2023	04:50	00:10:00	26.1	0.4	7.42	146.92	10.3	49	1011.1
28/04/2023	05:00	00:09:18	36.9	0	7.40	145.59	10.2	51	1011.3
28/04/2023	05:10	00:10:00	42.2	0	7.05	145.61	10.2	53	1011.3
28/04/2023	05:20	00:10:00	44.8	0.4	6.81	150.80	10.1	53	1011.3
28/04/2023	05:30	00:10:00	47.2	0	6.80	146.72	9.8	53	1011.3
28/04/2023	05:40	00:10:00	49	0.4	7.45	143.36	10	52	1011.2
28/04/2023	05:50	00:10:00	47.4	0	8.16	139.58	10.2	52	1011.1
28/04/2023	22:00	00:10:00	39	0.9	11.11	132.13	9.8	88	1009.9
28/04/2023	22:10	00:10:00	36.1	1.3	9.98	131.17	9.7	88	1009.8
28/04/2023	22:20	00:10:00	36.4	1.3	10.60	137.49	9.8	87	1009.9
28/04/2023	22:30	00:09:36	37.8	0.9	10.90	134.88	9.8	87	1009.6
28/04/2023	22:40	00:10:00	39.4	1.3	10.35	138.19	9.7	88	1009.2
28/04/2023	22:50	00:10:00	42.4	1.3	10.90	138.41	9.7	88	1009.2
28/04/2023	23:00	00:08:58	42	1.3	9.91	131.47	9.6	89	1009.5
28/04/2023	23:10	00:10:00	41.1	1.3	9.86	129.97	9.6	89	1009.2
28/04/2023	23:20	00:10:00	41.3	1.3	9.95	134.50	9.6	89	1009.4
28/04/2023	23:30	00:10:00	39.8	1.8	8.99	134.30	9.6	89	1009.4
28/04/2023	23:40	00:10:00	37.3	1.3	8.45	134.12	9.5	89	1009.5
28/04/2023	23:50	00:09:59	42.1	0.9	9.16	135.22	9.6	89	1009.5

**TABELLA 2**  
**Livello di rumore residuo - Periodo Notturno**

Data	Ore	Durata effettiva intervallo	L <sub>R</sub>	v <sub>r</sub>	V	θ	Temp.	Umid.	Press.
[gg/mm/aaaa]	[hh:mm]	[hh:mm:ss]	[dB(A)]	[m/s]	[m/s]	[°]	[°C]	[%]	[Bar]
29/04/2023	00:00	00:09:17	42.1	1.8	8.83	133.95	9.5	88	1009
29/04/2023	00:10	00:10:00	43.9	1.3	9.87	135.55	9.4	90	1008.9
29/04/2023	00:20	00:10:00	43.4	1.3	9.39	140.20	9.4	91	1008.9
29/04/2023	00:30	00:10:00	43.2	1.3	8.96	134.53	9.3	91	1009.3
29/04/2023	00:40	00:10:00	41.6	1.8	8.92	139.95	9.2	92	1009.1
29/04/2023	00:50	00:10:00	42.7	1.3	9.67	141.45	9.3	93	1009.1
29/04/2023	01:00	00:10:00	44.2	1.3	8.88	136.95	9.3	93	1009.4
29/04/2023	01:10	00:10:00	44.5	1.8	9.27	135.78	9.3	93	1009.2
29/04/2023	01:20	00:10:00	40.2	1.8	9.61	136.54	9.3	92	1009.1
29/04/2023	01:30	00:10:00	38.4	1.3	10.25	134.80	9.3	93	1009.2
29/04/2023	01:40	00:10:00	38.3	0.9	10.29	130.55	9.3	92	1008.9
29/04/2023	01:50	00:10:00	37.9	0.9	9.88	136.85	9.3	93	1008.6
29/04/2023	02:00	00:09:53	40.3	0.9	10.01	141.06	9.4	93	1008.5
29/04/2023	02:10	00:10:00	39.3	1.3	10.04	143.63	9.3	92	1008.5
29/04/2023	02:20	00:10:00	35.1	1.3	9.89	142.94	9.3	92	1008.6
29/04/2023	02:30	00:10:00	35.6	0.9	9.85	138.05	9.3	91	1008.6
29/04/2023	02:40	00:10:00	34.7	0.9	10.03	134.35	9.3	91	1008.3
29/04/2023	02:50	00:10:00	34.3	0.9	10.09	138.79	9.3	91	1008.3
29/04/2023	03:00	00:10:00	32.6	0.9	10.21	139.52	9.4	91	1008.5
29/04/2023	03:10	00:10:00	35.7	0.9	10.28	135.62	9.4	91	1008.2
29/04/2023	03:20	00:10:00	35.8	0.9	9.77	133.98	9.3	91	1007.8
29/04/2023	03:30	00:10:00	39.3	0.9	9.95	136.79	9.3	91	1007.4
29/04/2023	03:40	00:10:00	37	0.9	9.09	134.77	9.3	92	1007.7
29/04/2023	03:50	00:10:00	38.9	0.4	9.91	136.04	9.3	92	1007.7
29/04/2023	04:00	00:09:20	35.5	0.9	9.71	132.04	9.4	93	1007.6
29/04/2023	04:10	00:10:00	33.9	0.9	9.60	129.11	9.4	93	1007.6
29/04/2023	04:20	00:10:00	33.8	0.9	8.66	131.28	9.4	93	1007.9
29/04/2023	04:30	00:10:00	35	0.9	8.81	131.57	9.4	93	1007.4
29/04/2023	04:40	00:09:39	38.7	1.3	8.37	136.87	9.3	93	1007.4
29/04/2023	04:50	00:10:00	40.5	1.3	8.00	138.66	9.3	93	1006.8
29/04/2023	05:00	00:10:00	44.8	1.3	6.95	139.39	9.4	92	1006.9
29/04/2023	05:10	00:09:48	41.5	1.3	6.08	141.40	9.4	92	1006.6
29/04/2023	05:20	00:10:00	43	1.3	6.34	143.63	9.4	93	1007.1
29/04/2023	05:30	00:10:00	46.5	1.3	7.75	142.79	9.4	94	1006.8
29/04/2023	05:40	00:10:00	49.1	1.3	7.62	138.98	9.4	94	1007.3
29/04/2023	05:50	00:09:07	46.7	1.3	6.01	134.39	9.4	94	1006.7
29/04/2023	23:40	00:10:00	28.6	0	3.27	19.11	11.1	91	1007.8
29/04/2023	23:50	00:10:00	29.4	0	4.18	21.82	11.2	91	1007.8
30/04/2023	00:00	00:09:18	25.9	0	4.68	24.28	11.2	91	1007.8
30/04/2023	00:10	00:09:48	27.6	0	5.10	19.92	11.3	91	1007.8
30/04/2023	00:20	00:10:00	26.5	0	4.64	21.21	11.3	91	1007.8
30/04/2023	00:30	00:10:00	28.3	0	3.70	18.94	11.3	91	1007.7
30/04/2023	00:40	00:10:00	31.1	0	3.20	26.17	11.4	90	1007.8
30/04/2023	00:50	00:10:00	26.6	0	3.57	31.15	11.3	91	1007.8
30/04/2023	01:00	00:10:00	28.8	0	3.58	32.81	11.3	91	1007.7
30/04/2023	01:10	00:10:00	25.2	0	3.93	32.70	11.3	91	1007.7
30/04/2023	01:20	00:10:00	28.2	0	4.18	25.48	11.2	91	1007.5
30/04/2023	01:30	00:10:00	26	0	4.12	31.46	11.2	91	1007.4
30/04/2023	01:40	00:10:00	25.7	0	4.71	32.74	11.2	92	1007.3
30/04/2023	01:50	00:09:55	30.3	0.4	5.05	36.91	11.2	92	1007.3
30/04/2023	02:00	00:10:00	30.9	0.4	5.62	31.27	11.2	92	1007.2
30/04/2023	02:10	00:10:00	30.6	0.4	6.15	30.59	11.2	92	1007.1
30/04/2023	02:20	00:10:00	27.6	0	5.73	29.55	11.1	93	1007.1



**TABELLA 2**  
**Livello di rumore residuo - Periodo Notturno**

Data [gg/mm/aaaa]	Ore [hh:mm]	Durata effettiva intervallo [hh:mm:ss]	L <sub>R</sub> [dB(A)]	v <sub>r</sub> [m/s]	V [m/s]	θ [°]	Temp. [°C]	Umid. [%]	Press. [Bar]
30/04/2023	02:30	00:10:00	26.8	0	5.74	29.67	11	93	1007.1
30/04/2023	02:40	00:10:00	30.8	0	5.43	29.47	11	94	1007
30/04/2023	02:50	00:10:00	29.1	0	5.86	25.65	10.9	94	1007
30/04/2023	03:00	00:10:00	29.1	0	5.44	23.10	11	94	1006.9
30/04/2023	03:10	00:10:00	30.2	0	5.39	45.47	10.9	94	1006.9
30/04/2023	03:20	00:10:00	26.2	0	4.93	49.76	10.9	94	1006.9
30/04/2023	04:10	00:10:00	29.3	0.9	4.23	45.84	10.9	96	1006.4
30/04/2023	04:20	00:10:00	29.2	0.9	4.85	34.62	10.9	96	1006.5
30/04/2023	04:30	00:10:00	32.7	0.9	5.09	27.26	10.9	96	1006.5
30/04/2023	04:40	00:10:00	30.6	1.3	5.34	31.13	10.8	96	1006.4
30/04/2023	04:50	00:10:00	25.4	1.3	5.41	29.94	10.8	96	1006.5
30/04/2023	05:00	00:09:30	28.4	0.9	5.78	39.33	10.7	96	1006.5
30/04/2023	05:10	00:09:20	25.5	0.9	6.08	39.60	10.7	96	1006.5
30/04/2023	05:20	00:10:00	25.4	0.9	5.46	39.33	10.6	96	1006.4
30/04/2023	05:30	00:09:11	43.9	0.4	5.37	35.41	10.6	96	1006.5
30/04/2023	05:40	00:09:20	44.8	0.9	6.03	27.08	10.5	96	1006.5
30/04/2023	05:50	00:09:15	47.2	0.9	4.30	38.90	10.4	96	1006.5
30/04/2023	22:00	00:10:00	34.5	0.4	7.93	83.22	11.2	87	1006.5
30/04/2023	22:10	00:10:00	36.6	0.9	6.41	86.91	11.3	86	1006.6
30/04/2023	22:20	00:10:00	36.6	1.3	7.50	91.98	11.3	87	1006.6
30/04/2023	22:30	00:10:00	35.8	1.3	8.70	86.99	11.3	87	1006.7
30/04/2023	22:40	00:10:00	36.5	1.3	6.75	86.07	11.2	88	1006.7
30/04/2023	22:50	00:10:00	34	0.9	7.66	88.76	11.1	88	1006.6
30/04/2023	23:00	00:10:00	33.3	0.9	9.53	92.83	10.8	89	1006.7
30/04/2023	23:10	00:08:01	36.2	0.9	9.21	95.33	10.8	90	1006.7
30/04/2023	23:20	00:10:00	31.6	0.9	10.09	92.82	10.8	90	1006.7
30/04/2023	23:30	00:10:00	30.3	0.9	9.65	89.48	10.7	90	1006.7
30/04/2023	23:40	00:10:00	30.9	0.9	8.62	94.10	10.7	90	1006.8
30/04/2023	23:50	00:10:00	30.4	0.9	7.91	85.48	10.6	90	1006.7
01/05/2023	00:00	00:09:17	30.4	0.9	7.99	97.95	10.5	90	1006.5
01/05/2023	00:10	00:10:00	31.3	1.3	9.20	84.19	10.5	89	1006.7
01/05/2023	00:20	00:10:00	32.2	0.9	6.94	69.63	10.4	90	1006.7
01/05/2023	00:30	00:10:00	28.4	0.9	9.12	84.28	10.3	90	1006.7
01/05/2023	00:40	00:10:00	33.6	0.4	10.30	78.69	10.2	91	1006.8
01/05/2023	00:50	00:10:00	36.4	0.4	11.14	83.37	10.1	91	1006.8
01/05/2023	01:00	00:10:00	31.3	0.9	11.51	87.53	9.9	91	1006.9
01/05/2023	01:10	00:10:00	36.1	0.9	11.40	92.55	9.8	91	1006.8
01/05/2023	01:20	00:10:00	35.2	0.9	11.20	92.59	9.8	91	1007
01/05/2023	01:30	00:10:00	28.9	0.4	11.37	89.93	9.8	91	1006.8
01/05/2023	01:40	00:10:00	30.8	0.9	12.40	88.53	9.8	91	1006.8
01/05/2023	01:50	00:10:00	28.4	0.4	12.07	86.71	9.8	91	1006.6
01/05/2023	02:00	00:10:00	28.2	0.4	12.68	88.38	9.8	90	1006.6
01/05/2023	02:10	00:10:00	29.2	0.9	12.09	90.54	9.7	90	1006.5
01/05/2023	02:20	00:10:00	27.8	0.4	12.08	88.53	9.8	89	1006.4
01/05/2023	02:30	00:10:00	32.1	0.9	12.49	91.50	9.8	88	1006.4
01/05/2023	02:40	00:10:00	31.6	0.9	12.23	87.96	9.8	88	1006.3
01/05/2023	02:50	00:10:00	30.7	0.9	12.55	87.21	9.7	89	1006.2
01/05/2023	03:00	00:10:00	28.5	0.9	12.84	81.50	9.6	90	1006.1
01/05/2023	03:10	00:10:00	32.8	0.9	11.11	82.97	9.5	90	1006
01/05/2023	03:20	00:10:00	31.4	1.3	11.77	86.49	9.4	90	1006
01/05/2023	03:30	00:10:00	36.4	0.9	10.36	95.33	9.4	90	1006
01/05/2023	03:40	00:10:00	34.6	0.9	7.78	93.89	9.4	90	1006
01/05/2023	03:50	00:10:00	31.9	0.9	7.07	96.72	9.4	90	1006.1

**TABELLA 2**  
**Livello di rumore residuo - Periodo Notturno**

Data [gg/mm/aaaa]	Ore [hh:mm]	Durata effettiva intervallo [hh:mm:ss]	L <sub>R</sub> [dB(A)]	v <sub>r</sub> [m/s]	V [m/s]	θ [°]	Temp. [°C]	Umid. [%]	Press. [Bar]
01/05/2023	04:00	00:10:00	31.2	0.9	10.39	93.79	9.4	89	1006
01/05/2023	04:10	00:10:00	28.4	0.9	9.53	88.47	9.4	89	1005.9
01/05/2023	04:20	00:10:00	29.6	0.4	8.51	82.22	9.4	88	1005.9
01/05/2023	04:30	00:09:29	34.9	0.9	4.58	94.15	9.5	87	1005.8
01/05/2023	04:40	00:10:00	31.2	0.9	5.05	84.96	9.6	85	1005.7
01/05/2023	04:50	00:07:28	28.3	0.9	6.58	72.96	9.8	84	1005.6
01/05/2023	05:00	00:10:00	28.7	0.4	7.53	67.89	9.7	83	1005.5
01/05/2023	05:10	00:09:35	32.4	0.4	8.69	72.99	9.7	82	1005.4
01/05/2023	05:20	00:10:00	43	0.4	8.41	62.52	9.8	81	1005.4
01/05/2023	05:30	00:10:00	47.1	0.4	8.13	65.85	9.8	80	1005.3
01/05/2023	05:40	00:08:45	49.6	0	7.88	71.68	9.8	79	1005.4
01/05/2023	05:50	00:08:50	47.5	0.4	7.20	73.58	9.8	80	1005.4
01/05/2023	22:30	00:10:00	47.2	1.8	9.32	12.62	7.4	97	1006.3
01/05/2023	22:40	00:10:00	45.8	2.2	10.37	8.33	7.3	97	1006.2
01/05/2023	22:50	00:10:00	41.7	1.8	10.66	10.43	7.3	97	1006.2
01/05/2023	23:00	00:10:00	46.4	1.8	11.01	12.43	7.3	97	1006.3
01/05/2023	23:10	00:10:00	47.2	2.2	11.80	15.21	7.3	97	1006.2
01/05/2023	23:20	00:10:00	44.4	2.7	10.96	14.63	7.3	97	1006.3
01/05/2023	23:40	00:10:00	43.6	1.8	11.43	12.33	7.2	97	1006.2
01/05/2023	23:50	00:09:59	41.5	1.8	10.91	11.28	7.2	97	1006.1
02/05/2023	00:40	00:10:00	46.3	2.2	11.59	12.08	7.3	97	1006.1
02/05/2023	01:00	00:10:00	52.2	2.2	12.27	5.94	7.2	97	1005.9
02/05/2023	01:10	00:10:00	53.6	3.1	12.98	10.97	7.1	97	1005.9
02/05/2023	01:30	00:10:00	48.7	2.2	13.28	11.78	7.1	97	1005.9
02/05/2023	01:40	00:10:00	47.1	2.2	13.79	10.07	7.1	97	1005.9
02/05/2023	02:10	00:10:00	46.5	2.2	12.65	10.66	7.1	97	1005.7
02/05/2023	03:00	00:10:00	46.1	1.8	13.09	10.22	7.1	97	1005.2
02/05/2023	03:30	00:10:00	51.2	2.7	13.06	4.92	7.1	97	1004.9
02/05/2023	04:00	00:10:00	43	1.8	13.81	5.34	7.1	97	1005
02/05/2023	05:20	00:10:00	44.7	2.7	11.26	356.84	6.8	97	1004.9
02/05/2023	05:30	00:10:00	44.7	1.8	12.04	1.94	6.8	97	1005
02/05/2023	05:50	00:10:00	50.4	2.2	13.29	4.10	6.7	98	1005.2
02/05/2023	22:00	00:10:00	44.3	2.2	8.56	23.09	8.3	98	1011.3
02/05/2023	22:10	00:10:00	44.6	1.8	9.35	22.85	8.3	98	1011.5
02/05/2023	22:20	00:10:00	40.1	1.8	9.08	20.10	8.3	98	1011.6
02/05/2023	22:30	00:10:00	40.3	1.3	9.50	18.82	8.3	98	1011.7
02/05/2023	22:40	00:09:51	40.6	1.3	10.56	21.90	8.3	98	1011.8
02/05/2023	22:50	00:10:00	39.8	1.3	10.36	20.29	8.3	98	1011.8
02/05/2023	23:00	00:10:00	39.5	1.3	10.52	19.27	8.3	98	1011.9
02/05/2023	23:10	00:10:00	39.9	1.8	9.71	13.16	8.3	98	1011.8
02/05/2023	23:20	00:10:00	44	1.3	9.49	20.45	8.3	98	1011.8
02/05/2023	23:30	00:10:00	40.8	1.8	9.83	16.52	8.3	98	1011.9
02/05/2023	23:40	00:10:00	42.9	1.8	9.23	18.71	8.3	98	1011.8
02/05/2023	23:50	00:10:00	41.8	1.8	10.22	21.05	8.3	98	1011.9
03/05/2023	00:00	00:09:18	41.6	1.8	10.44	27.00	8.2	98	1011.9
03/05/2023	00:10	00:10:00	43.1	1.3	11.03	25.33	8.2	98	1012
03/05/2023	00:20	00:10:00	46.9	1.8	10.84	20.84	8.2	98	1012.1
03/05/2023	00:30	00:10:00	47.9	2.2	10.28	18.36	8.1	98	1012
03/05/2023	00:40	00:10:00	48.3	2.2	9.76	18.67	8.2	98	1012
03/05/2023	00:50	00:10:00	48.6	2.2	8.57	17.68	8.2	98	1012
03/05/2023	01:00	00:10:00	45.3	2.2	8.52	17.90	8.2	98	1012
03/05/2023	01:10	00:10:00	43.4	2.2	8.41	13.77	8.2	98	1012.1
03/05/2023	01:20	00:10:00	45.9	1.8	7.97	17.24	8.2	98	1012

**TABELLA 2**  
**Livello di rumore residuo - Periodo Notturno**

<b>Data</b> <b>[gg/mm/aaaa]</b>	<b>Ore</b> <b>[hh:mm]</b>	<b>Durata effettiva</b> <b>intervallo</b> <b>[hh:mm:ss]</b>	<b>L<sub>R</sub></b> <b>[dB(A)]</b>	<b>v<sub>r</sub></b> <b>[m/s]</b>	<b>V</b> <b>[m/s]</b>	<b>θ</b> <b>[°]</b>	<b>Temp.</b> <b>[°C]</b>	<b>Umid.</b> <b>[%]</b>	<b>Press.</b> <b>[Bar]</b>
03/05/2023	01:30	00:10:00	44.5	1.8	7.62	12.41	8.1	98	1012
03/05/2023	01:40	00:10:00	48.9	2.2	9.28	18.69	8.1	98	1011.9
03/05/2023	01:50	00:10:00	52.3	2.2	10.49	25.46	8	98	1011.9
03/05/2023	02:00	00:10:00	50	3.1	9.75	29.13	7.9	98	1011.8
03/05/2023	02:10	00:10:00	50.7	2.7	10.40	26.70	7.9	98	1011.7
03/05/2023	02:20	00:10:00	47	2.7	11.12	30.38	7.9	98	1011.7
03/05/2023	02:30	00:10:00	45.9	2.2	11.89	32.40	7.8	98	1011.8
03/05/2023	02:40	00:10:00	46.1	1.8	10.57	32.50	7.8	98	1011.7
03/05/2023	02:50	00:10:00	43.5	1.8	9.46	26.29	7.8	98	1011.7
03/05/2023	03:00	00:10:00	44.8	1.8	9.67	26.16	7.8	98	1011.7
03/05/2023	03:10	00:10:00	45.5	1.8	10.00	31.54	7.8	98	1011.7
03/05/2023	03:20	00:10:00	39.9	1.8	9.37	36.43	7.7	98	1011.6
03/05/2023	03:30	00:10:00	48.4	1.3	10.74	30.47	7.8	98	1011.5
03/05/2023	03:40	00:10:00	51	1.8	9.82	27.46	7.7	98	1011.7
03/05/2023	03:50	00:10:00	48.2	2.7	9.68	19.58	7.6	98	1011.7
03/05/2023	04:00	00:10:00	39.4	2.2	9.23	20.80	7.6	98	1011.8
03/05/2023	04:10	00:10:00	43	1.8	8.98	17.19	7.6	98	1011.9
03/05/2023	04:20	00:09:36	39.5	1.3	9.93	21.91	7.6	98	1011.8
03/05/2023	04:40	00:10:00	41.6	1.3	10.27	18.70	7.4	98	1011.8
03/05/2023	04:50	00:10:00	46.4	1.3	10.24	17.96	7.4	98	1011.8
03/05/2023	05:10	00:10:00	44.7	1.8	10.37	20.22	7.3	98	1012
03/05/2023	05:30	00:10:00	45.9	1.8	10.30	19.30	7.3	98	1012.3

**TABELLA 3**  
**Riordino Livello di rumore residuo - Periodo Notturno**

Data [gg/mm/aaaa]	Ore [hh:mm]	Durata effettiva intervallo [hh:mm:ss]	L <sub>R</sub> [dB(A)]	v <sub>r</sub> [m/s]	V [m/s]	θ [°]	Temp. [°C]	Umid. [%]	Press. [Bar]	Classe di v <sub>r</sub> [m/s]
27/04/2023	23:10	00:09:40	35	0	7.71	130.97	10.7	44	1011.4	0.0 ÷ 1.0
27/04/2023	23:50	00:10:00	31.5	0	4.24	133.34	10.4	45	1011.2	0.0 ÷ 1.0
28/04/2023	00:20	00:10:00	27	0	7.53	131.12	10.4	47	1011.8	0.0 ÷ 1.0
28/04/2023	01:10	00:10:00	28.1	0	7.13	141.69	9.7	51	1011.9	0.0 ÷ 1.0
28/04/2023	01:20	00:10:00	27.7	0	6.62	140.98	9.6	53	1011.8	0.0 ÷ 1.0
28/04/2023	01:30	00:10:00	26.1	0	6.70	141.65	9.5	52	1011.8	0.0 ÷ 1.0
28/04/2023	01:40	00:10:00	25.9	0	6.94	134.14	9.5	52	1011.9	0.0 ÷ 1.0
28/04/2023	01:50	00:10:00	26.2	0	7.35	136.14	9.6	52	1011.7	0.0 ÷ 1.0
28/04/2023	02:00	00:10:00	27.5	0	7.88	137.07	9.6	53	1011.5	0.0 ÷ 1.0
28/04/2023	03:20	00:10:00	24.2	0	5.60	138.05	10.5	50	1011.3	0.0 ÷ 1.0
28/04/2023	03:30	00:10:00	29.2	0	4.69	167.52	10.5	50	1011.4	0.0 ÷ 1.0
28/04/2023	03:40	00:10:00	25.5	0	7.54	189.54	10.5	50	1011.4	0.0 ÷ 1.0
28/04/2023	03:50	00:10:00	31.4	0	7.81	138.85	10.3	50	1011.3	0.0 ÷ 1.0
28/04/2023	04:00	00:10:00	26.2	0	7.49	145.57	10.2	51	1011.3	0.0 ÷ 1.0
28/04/2023	04:10	00:10:00	25.5	0	7.82	146.33	9.9	52	1011.2	0.0 ÷ 1.0
28/04/2023	04:20	00:10:00	26.1	0	8.03	146.89	9.8	51	1011.1	0.0 ÷ 1.0
28/04/2023	04:30	00:08:47	26.4	0	7.90	145.57	10.1	50	1011.3	0.0 ÷ 1.0
28/04/2023	05:00	00:09:18	36.9	0	7.40	145.59	10.2	51	1011.3	0.0 ÷ 1.0
28/04/2023	05:10	00:10:00	42.2	0	7.05	145.61	10.2	53	1011.3	0.0 ÷ 1.0
28/04/2023	05:30	00:10:00	47.2	0	6.80	146.72	9.8	53	1011.3	0.0 ÷ 1.0
28/04/2023	05:50	00:10:00	47.4	0	8.16	139.58	10.2	52	1011.1	0.0 ÷ 1.0
29/04/2023	23:40	00:10:00	28.6	0	3.27	19.11	11.1	91	1007.8	0.0 ÷ 1.0
29/04/2023	23:50	00:10:00	29.4	0	4.18	21.82	11.2	91	1007.8	0.0 ÷ 1.0
30/04/2023	00:00	00:09:18	25.9	0	4.68	24.28	11.2	91	1007.8	0.0 ÷ 1.0
30/04/2023	00:10	00:09:48	27.6	0	5.10	19.92	11.3	91	1007.8	0.0 ÷ 1.0
30/04/2023	00:20	00:10:00	26.5	0	4.64	21.21	11.3	91	1007.8	0.0 ÷ 1.0
30/04/2023	00:30	00:10:00	28.3	0	3.70	18.94	11.3	91	1007.7	0.0 ÷ 1.0
30/04/2023	00:40	00:10:00	31.1	0	3.20	26.17	11.4	90	1007.8	0.0 ÷ 1.0
30/04/2023	00:50	00:10:00	26.6	0	3.57	31.15	11.3	91	1007.8	0.0 ÷ 1.0
30/04/2023	01:00	00:10:00	28.8	0	3.58	32.81	11.3	91	1007.7	0.0 ÷ 1.0
30/04/2023	01:10	00:10:00	25.2	0	3.93	32.70	11.3	91	1007.7	0.0 ÷ 1.0
30/04/2023	01:20	00:10:00	28.2	0	4.18	25.48	11.2	91	1007.5	0.0 ÷ 1.0
30/04/2023	01:30	00:10:00	26	0	4.12	31.46	11.2	91	1007.4	0.0 ÷ 1.0
30/04/2023	01:40	00:10:00	25.7	0	4.71	32.74	11.2	92	1007.3	0.0 ÷ 1.0
30/04/2023	02:20	00:10:00	27.6	0	5.73	29.55	11.1	93	1007.1	0.0 ÷ 1.0
30/04/2023	02:30	00:10:00	26.8	0	5.74	29.67	11	93	1007.1	0.0 ÷ 1.0
30/04/2023	02:40	00:10:00	30.8	0	5.43	29.47	11	94	1007	0.0 ÷ 1.0
30/04/2023	02:50	00:10:00	29.1	0	5.86	25.65	10.9	94	1007	0.0 ÷ 1.0
30/04/2023	03:00	00:10:00	29.1	0	5.44	23.10	11	94	1006.9	0.0 ÷ 1.0
30/04/2023	03:10	00:10:00	30.2	0	5.39	45.47	10.9	94	1006.9	0.0 ÷ 1.0
30/04/2023	03:20	00:10:00	26.2	0	4.93	49.76	10.9	94	1006.9	0.0 ÷ 1.0
01/05/2023	05:40	00:08:45	49.6	0	7.88	71.68	9.8	79	1005.4	0.0 ÷ 1.0
27/04/2023	23:00	00:10:00	33.7	0.4	8.16	131.27	10.9	44	1011.4	0.0 ÷ 1.0
27/04/2023	23:20	00:10:00	34	0.4	6.62	135.42	10.7	44	1011.3	0.0 ÷ 1.0
27/04/2023	23:30	00:10:00	33.5	0.4	4.95	138.21	10.6	45	1011.3	0.0 ÷ 1.0
27/04/2023	23:40	00:10:00	30.8	0.4	6.68	132.64	10.6	44	1011.3	0.0 ÷ 1.0
28/04/2023	00:00	00:09:17	33.9	0.4	7.47	134.66	10.6	45	1011.2	0.0 ÷ 1.0
28/04/2023	00:10	00:10:00	27.6	0.4	7.32	133.69	10.7	46	1011.5	0.0 ÷ 1.0
28/04/2023	00:30	00:10:00	29.1	0.4	7.07	131.01	10.1	48	1011.7	0.0 ÷ 1.0
28/04/2023	00:40	00:10:00	32.1	0.4	6.89	133.02	10.2	49	1011.8	0.0 ÷ 1.0
28/04/2023	00:50	00:10:00	29.5	0.4	7.15	136.11	9.9	50	1012	0.0 ÷ 1.0
28/04/2023	01:00	00:10:00	30.4	0.4	7.19	135.21	9.9	51	1012	0.0 ÷ 1.0
28/04/2023	04:40	00:10:00	29.7	0.4	7.67	147.10	10.2	49	1011.1	0.0 ÷ 1.0



**TABELLA 3**  
**Riordino Livello di rumore residuo - Periodo Notturno**

Data [gg/mm/aaaa]	Ore [hh:mm]	Durata effettiva intervallo [hh:mm:ss]	L <sub>R</sub> [dB(A)]	v <sub>r</sub> [m/s]	V [m/s]	θ [°]	Temp. [°C]	Umid. [%]	Press. [Bar]	Classe di v <sub>r</sub> [m/s]
28/04/2023	04:50	00:10:00	26.1	0.4	7.42	146.92	10.3	49	1011.1	0.0 ÷ 1.0
28/04/2023	05:20	00:10:00	44.8	0.4	6.81	150.80	10.1	53	1011.3	0.0 ÷ 1.0
28/04/2023	05:40	00:10:00	49	0.4	7.45	143.36	10	52	1011.2	0.0 ÷ 1.0
29/04/2023	03:50	00:10:00	38.9	0.4	9.91	136.04	9.3	92	1007.7	0.0 ÷ 1.0
30/04/2023	01:50	00:09:55	30.3	0.4	5.05	36.91	11.2	92	1007.3	0.0 ÷ 1.0
30/04/2023	02:00	00:10:00	30.9	0.4	5.62	31.27	11.2	92	1007.2	0.0 ÷ 1.0
30/04/2023	02:10	00:10:00	30.6	0.4	6.15	30.59	11.2	92	1007.1	0.0 ÷ 1.0
30/04/2023	05:30	00:09:11	43.9	0.4	5.37	35.41	10.6	96	1006.5	0.0 ÷ 1.0
30/04/2023	22:00	00:10:00	34.5	0.4	7.93	83.22	11.2	87	1006.5	0.0 ÷ 1.0
01/05/2023	00:40	00:10:00	33.6	0.4	10.30	78.69	10.2	91	1006.8	0.0 ÷ 1.0
01/05/2023	00:50	00:10:00	36.4	0.4	11.14	83.37	10.1	91	1006.8	0.0 ÷ 1.0
01/05/2023	01:30	00:10:00	28.9	0.4	11.37	89.93	9.8	91	1006.8	0.0 ÷ 1.0
01/05/2023	01:50	00:10:00	28.4	0.4	12.07	86.71	9.8	91	1006.6	0.0 ÷ 1.0
01/05/2023	02:00	00:10:00	28.2	0.4	12.68	88.38	9.8	90	1006.6	0.0 ÷ 1.0
01/05/2023	02:20	00:10:00	27.8	0.4	12.08	88.53	9.8	89	1006.4	0.0 ÷ 1.0
01/05/2023	04:20	00:10:00	29.6	0.4	8.51	82.22	9.4	88	1005.9	0.0 ÷ 1.0
01/05/2023	05:00	00:10:00	28.7	0.4	7.53	67.89	9.7	83	1005.5	0.0 ÷ 1.0
01/05/2023	05:10	00:09:35	32.4	0.4	8.69	72.99	9.7	82	1005.4	0.0 ÷ 1.0
01/05/2023	05:20	00:10:00	43	0.4	8.41	62.52	9.8	81	1005.4	0.0 ÷ 1.0
01/05/2023	05:30	00:10:00	47.1	0.4	8.13	65.85	9.8	80	1005.3	0.0 ÷ 1.0
01/05/2023	05:50	00:08:50	47.5	0.4	7.20	73.58	9.8	80	1005.4	0.0 ÷ 1.0
27/04/2023	22:00	00:10:00	34.5	0.9	8.39	132.31	11.1	43	1011.3	0.0 ÷ 1.0
27/04/2023	22:10	00:10:00	34.6	0.9	8.56	129.32	11.2	44	1011.6	0.0 ÷ 1.0
27/04/2023	22:20	00:10:00	34.6	0.9	8.23	129.48	11	46	1011.5	0.0 ÷ 1.0
27/04/2023	22:30	00:10:00	34.7	0.9	8.06	130.90	11.1	44	1011.6	0.0 ÷ 1.0
27/04/2023	22:40	00:10:00	34	0.9	8.44	129.57	11	44	1011.5	0.0 ÷ 1.0
27/04/2023	22:50	00:10:00	34.1	0.9	8.26	129.26	11	45	1011.4	0.0 ÷ 1.0
28/04/2023	22:00	00:10:00	39	0.9	11.11	132.13	9.8	88	1009.9	0.0 ÷ 1.0
28/04/2023	22:30	00:09:36	37.8	0.9	10.90	134.88	9.8	87	1009.6	0.0 ÷ 1.0
28/04/2023	23:50	00:09:59	42.1	0.9	9.16	135.22	9.6	89	1009.5	0.0 ÷ 1.0
29/04/2023	01:40	00:10:00	38.3	0.9	10.29	130.55	9.3	92	1008.9	0.0 ÷ 1.0
29/04/2023	01:50	00:10:00	37.9	0.9	9.88	136.85	9.3	93	1008.6	0.0 ÷ 1.0
29/04/2023	02:00	00:09:53	40.3	0.9	10.01	141.06	9.4	93	1008.5	0.0 ÷ 1.0
29/04/2023	02:30	00:10:00	35.6	0.9	9.85	138.05	9.3	91	1008.6	0.0 ÷ 1.0
29/04/2023	02:40	00:10:00	34.7	0.9	10.03	134.35	9.3	91	1008.3	0.0 ÷ 1.0
29/04/2023	02:50	00:10:00	34.3	0.9	10.09	138.79	9.3	91	1008.3	0.0 ÷ 1.0
29/04/2023	03:00	00:10:00	32.6	0.9	10.21	139.52	9.4	91	1008.5	0.0 ÷ 1.0
29/04/2023	03:10	00:10:00	35.7	0.9	10.28	135.62	9.4	91	1008.2	0.0 ÷ 1.0
29/04/2023	03:20	00:10:00	35.8	0.9	9.77	133.98	9.3	91	1007.8	0.0 ÷ 1.0
29/04/2023	03:30	00:10:00	39.3	0.9	9.95	136.79	9.3	91	1007.4	0.0 ÷ 1.0
29/04/2023	03:40	00:10:00	37	0.9	9.09	134.77	9.3	92	1007.7	0.0 ÷ 1.0
29/04/2023	04:00	00:09:20	35.5	0.9	9.71	132.04	9.4	93	1007.6	0.0 ÷ 1.0
29/04/2023	04:10	00:10:00	33.9	0.9	9.60	129.11	9.4	93	1007.6	0.0 ÷ 1.0
29/04/2023	04:20	00:10:00	33.8	0.9	8.66	131.28	9.4	93	1007.9	0.0 ÷ 1.0
29/04/2023	04:30	00:10:00	35	0.9	8.81	131.57	9.4	93	1007.4	0.0 ÷ 1.0
30/04/2023	04:10	00:10:00	29.3	0.9	4.23	45.84	10.9	96	1006.4	0.0 ÷ 1.0
30/04/2023	04:20	00:10:00	29.2	0.9	4.85	34.62	10.9	96	1006.5	0.0 ÷ 1.0
30/04/2023	04:30	00:10:00	32.7	0.9	5.09	27.26	10.9	96	1006.5	0.0 ÷ 1.0
30/04/2023	05:00	00:09:30	28.4	0.9	5.78	39.33	10.7	96	1006.5	0.0 ÷ 1.0
30/04/2023	05:10	00:09:20	25.5	0.9	6.08	39.60	10.7	96	1006.5	0.0 ÷ 1.0
30/04/2023	05:20	00:10:00	25.4	0.9	5.46	39.33	10.6	96	1006.4	0.0 ÷ 1.0
30/04/2023	05:40	00:09:20	44.8	0.9	6.03	27.08	10.5	96	1006.5	0.0 ÷ 1.0
30/04/2023	05:50	00:09:15	47.2	0.9	4.30	38.90	10.4	96	1006.5	0.0 ÷ 1.0

**TABELLA 3**  
**Riordino Livello di rumore residuo - Periodo Notturno**

Data [gg/mm/aaaa]	Ore [hh:mm]	Durata effettiva intervallo [hh:mm:ss]	L <sub>R</sub> [dB(A)]	v <sub>r</sub> [m/s]	V [m/s]	θ [°]	Temp. [°C]	Umid. [%]	Press. [Bar]	Classe di v <sub>r</sub> [m/s]
30/04/2023	22:10	00:10:00	36.6	0.9	6.41	86.91	11.3	86	1006.6	0.0 ÷ 1.0
30/04/2023	22:50	00:10:00	34	0.9	7.66	88.76	11.1	88	1006.6	0.0 ÷ 1.0
30/04/2023	23:00	00:10:00	33.3	0.9	9.53	92.83	10.8	89	1006.7	0.0 ÷ 1.0
30/04/2023	23:10	00:08:01	36.2	0.9	9.21	95.33	10.8	90	1006.7	0.0 ÷ 1.0
30/04/2023	23:20	00:10:00	31.6	0.9	10.09	92.82	10.8	90	1006.7	0.0 ÷ 1.0
30/04/2023	23:30	00:10:00	30.3	0.9	9.65	89.48	10.7	90	1006.7	0.0 ÷ 1.0
30/04/2023	23:40	00:10:00	30.9	0.9	8.62	94.10	10.7	90	1006.8	0.0 ÷ 1.0
30/04/2023	23:50	00:10:00	30.4	0.9	7.91	85.48	10.6	90	1006.7	0.0 ÷ 1.0
01/05/2023	00:00	00:09:17	30.4	0.9	7.99	97.95	10.5	90	1006.5	0.0 ÷ 1.0
01/05/2023	00:20	00:10:00	32.2	0.9	6.94	69.63	10.4	90	1006.7	0.0 ÷ 1.0
01/05/2023	00:30	00:10:00	28.4	0.9	9.12	84.28	10.3	90	1006.7	0.0 ÷ 1.0
01/05/2023	01:00	00:10:00	31.3	0.9	11.51	87.53	9.9	91	1006.9	0.0 ÷ 1.0
01/05/2023	01:10	00:10:00	36.1	0.9	11.40	92.55	9.8	91	1006.8	0.0 ÷ 1.0
01/05/2023	01:20	00:10:00	35.2	0.9	11.20	92.59	9.8	91	1007	0.0 ÷ 1.0
01/05/2023	01:40	00:10:00	30.8	0.9	12.40	88.53	9.8	91	1006.8	0.0 ÷ 1.0
01/05/2023	02:10	00:10:00	29.2	0.9	12.09	90.54	9.7	90	1006.5	0.0 ÷ 1.0
01/05/2023	02:30	00:10:00	32.1	0.9	12.49	91.50	9.8	88	1006.4	0.0 ÷ 1.0
01/05/2023	02:40	00:10:00	31.6	0.9	12.23	87.96	9.8	88	1006.3	0.0 ÷ 1.0
01/05/2023	02:50	00:10:00	30.7	0.9	12.55	87.21	9.7	89	1006.2	0.0 ÷ 1.0
01/05/2023	03:00	00:10:00	28.5	0.9	12.84	81.50	9.6	90	1006.1	0.0 ÷ 1.0
01/05/2023	03:10	00:10:00	32.8	0.9	11.11	82.97	9.5	90	1006	0.0 ÷ 1.0
01/05/2023	03:30	00:10:00	36.4	0.9	10.36	95.33	9.4	90	1006	0.0 ÷ 1.0
01/05/2023	03:40	00:10:00	34.6	0.9	7.78	93.89	9.4	90	1006	0.0 ÷ 1.0
01/05/2023	03:50	00:10:00	31.9	0.9	7.07	96.72	9.4	90	1006.1	0.0 ÷ 1.0
01/05/2023	04:00	00:10:00	31.2	0.9	10.39	93.79	9.4	89	1006	0.0 ÷ 1.0
01/05/2023	04:10	00:10:00	28.4	0.9	9.53	88.47	9.4	89	1005.9	0.0 ÷ 1.0
01/05/2023	04:30	00:09:29	34.9	0.9	4.58	94.15	9.5	87	1005.8	0.0 ÷ 1.0
01/05/2023	04:40	00:10:00	31.2	0.9	5.05	84.96	9.6	85	1005.7	0.0 ÷ 1.0
01/05/2023	04:50	00:07:28	28.3	0.9	6.58	72.96	9.8	84	1005.6	0.0 ÷ 1.0
28/04/2023	22:10	00:10:00	36.1	1.3	9.98	131.17	9.7	88	1009.8	1.0 ÷ 2.0
28/04/2023	22:20	00:10:00	36.4	1.3	10.60	137.49	9.8	87	1009.9	1.0 ÷ 2.0
28/04/2023	22:40	00:10:00	39.4	1.3	10.35	138.19	9.7	88	1009.2	1.0 ÷ 2.0
28/04/2023	22:50	00:10:00	42.4	1.3	10.90	138.41	9.7	88	1009.2	1.0 ÷ 2.0
28/04/2023	23:00	00:08:58	42	1.3	9.91	131.47	9.6	89	1009.5	1.0 ÷ 2.0
28/04/2023	23:10	00:10:00	41.1	1.3	9.86	129.97	9.6	89	1009.2	1.0 ÷ 2.0
28/04/2023	23:20	00:10:00	41.3	1.3	9.95	134.50	9.6	89	1009.4	1.0 ÷ 2.0
28/04/2023	23:40	00:10:00	37.3	1.3	8.45	134.12	9.5	89	1009.5	1.0 ÷ 2.0
29/04/2023	00:10	00:10:00	43.9	1.3	9.87	135.55	9.4	90	1008.9	1.0 ÷ 2.0
29/04/2023	00:20	00:10:00	43.4	1.3	9.39	140.20	9.4	91	1008.9	1.0 ÷ 2.0
29/04/2023	00:30	00:10:00	43.2	1.3	8.96	134.53	9.3	91	1009.3	1.0 ÷ 2.0
29/04/2023	00:50	00:10:00	42.7	1.3	9.67	141.45	9.3	93	1009.1	1.0 ÷ 2.0
29/04/2023	01:00	00:10:00	44.2	1.3	8.88	136.95	9.3	93	1009.4	1.0 ÷ 2.0
29/04/2023	01:30	00:10:00	38.4	1.3	10.25	134.80	9.3	93	1009.2	1.0 ÷ 2.0
29/04/2023	02:10	00:10:00	39.3	1.3	10.04	143.63	9.3	92	1008.5	1.0 ÷ 2.0
29/04/2023	02:20	00:10:00	35.1	1.3	9.89	142.94	9.3	92	1008.6	1.0 ÷ 2.0
29/04/2023	04:40	00:09:39	38.7	1.3	8.37	136.87	9.3	93	1007.4	1.0 ÷ 2.0
29/04/2023	04:50	00:10:00	40.5	1.3	8.00	138.66	9.3	93	1006.8	1.0 ÷ 2.0
29/04/2023	05:00	00:10:00	44.8	1.3	6.95	139.39	9.4	92	1006.9	1.0 ÷ 2.0
29/04/2023	05:10	00:09:48	41.5	1.3	6.08	141.40	9.4	92	1006.6	1.0 ÷ 2.0
29/04/2023	05:20	00:10:00	43	1.3	6.34	143.63	9.4	93	1007.1	1.0 ÷ 2.0
29/04/2023	05:30	00:10:00	46.5	1.3	7.75	142.79	9.4	94	1006.8	1.0 ÷ 2.0
29/04/2023	05:40	00:10:00	49.1	1.3	7.62	138.98	9.4	94	1007.3	1.0 ÷ 2.0
29/04/2023	05:50	00:09:07	46.7	1.3	6.01	134.39	9.4	94	1006.7	1.0 ÷ 2.0

**TABELLA 3**  
**Riordino Livello di rumore residuo - Periodo Notturno**

Data [gg/mm/aaaa]	Ore [hh:mm]	Durata effettiva intervallo [hh:mm:ss]	L <sub>R</sub> [dB(A)]	v <sub>r</sub> [m/s]	V [m/s]	θ [°]	Temp. [°C]	Umid. [%]	Press. [Bar]	Classe di v <sub>r</sub> [m/s]
30/04/2023	04:40	00:10:00	30.6	1.3	5.34	31.13	10.8	96	1006.4	1.0 ÷ 2.0
30/04/2023	04:50	00:10:00	25.4	1.3	5.41	29.94	10.8	96	1006.5	1.0 ÷ 2.0
30/04/2023	22:20	00:10:00	36.6	1.3	7.50	91.98	11.3	87	1006.6	1.0 ÷ 2.0
30/04/2023	22:30	00:10:00	35.8	1.3	8.70	86.99	11.3	87	1006.7	1.0 ÷ 2.0
30/04/2023	22:40	00:10:00	36.5	1.3	6.75	86.07	11.2	88	1006.7	1.0 ÷ 2.0
01/05/2023	00:10	00:10:00	31.3	1.3	9.20	84.19	10.5	89	1006.7	1.0 ÷ 2.0
01/05/2023	03:20	00:10:00	31.4	1.3	11.77	86.49	9.4	90	1006	1.0 ÷ 2.0
02/05/2023	22:30	00:10:00	40.3	1.3	9.50	18.82	8.3	98	1011.7	1.0 ÷ 2.0
02/05/2023	22:40	00:09:51	40.6	1.3	10.56	21.90	8.3	98	1011.8	1.0 ÷ 2.0
02/05/2023	22:50	00:10:00	39.8	1.3	10.36	20.29	8.3	98	1011.8	1.0 ÷ 2.0
02/05/2023	23:00	00:10:00	39.5	1.3	10.52	19.27	8.3	98	1011.9	1.0 ÷ 2.0
02/05/2023	23:20	00:10:00	44	1.3	9.49	20.45	8.3	98	1011.8	1.0 ÷ 2.0
03/05/2023	00:10	00:10:00	43.1	1.3	11.03	25.33	8.2	98	1012	1.0 ÷ 2.0
03/05/2023	03:30	00:10:00	48.4	1.3	10.74	30.47	7.8	98	1011.5	1.0 ÷ 2.0
03/05/2023	04:20	00:09:36	39.5	1.3	9.93	21.91	7.6	98	1011.8	1.0 ÷ 2.0
03/05/2023	04:40	00:10:00	41.6	1.3	10.27	18.70	7.4	98	1011.8	1.0 ÷ 2.0
03/05/2023	04:50	00:10:00	46.4	1.3	10.24	17.96	7.4	98	1011.8	1.0 ÷ 2.0
28/04/2023	23:30	00:10:00	39.8	1.8	8.99	134.30	9.6	89	1009.4	1.0 ÷ 2.0
29/04/2023	00:00	00:09:17	42.1	1.8	8.83	133.95	9.5	88	1009	1.0 ÷ 2.0
29/04/2023	00:40	00:10:00	41.6	1.8	8.92	139.95	9.2	92	1009.1	1.0 ÷ 2.0
29/04/2023	01:10	00:10:00	44.5	1.8	9.27	135.78	9.3	93	1009.2	1.0 ÷ 2.0
29/04/2023	01:20	00:10:00	40.2	1.8	9.61	136.54	9.3	92	1009.1	1.0 ÷ 2.0
01/05/2023	22:30	00:10:00	47.2	1.8	9.32	12.62	7.4	97	1006.3	1.0 ÷ 2.0
01/05/2023	22:50	00:10:00	41.7	1.8	10.66	10.43	7.3	97	1006.2	1.0 ÷ 2.0
01/05/2023	23:00	00:10:00	46.4	1.8	11.01	12.43	7.3	97	1006.3	1.0 ÷ 2.0
01/05/2023	23:40	00:10:00	43.6	1.8	11.43	12.33	7.2	97	1006.2	1.0 ÷ 2.0
01/05/2023	23:50	00:09:59	41.5	1.8	10.91	11.28	7.2	97	1006.1	1.0 ÷ 2.0
02/05/2023	03:00	00:10:00	46.1	1.8	13.09	10.22	7.1	97	1005.2	1.0 ÷ 2.0
02/05/2023	04:00	00:10:00	43	1.8	13.81	5.34	7.1	97	1005	1.0 ÷ 2.0
02/05/2023	05:30	00:10:00	44.7	1.8	12.04	1.94	6.8	97	1005	1.0 ÷ 2.0
02/05/2023	22:10	00:10:00	44.6	1.8	9.35	22.85	8.3	98	1011.5	1.0 ÷ 2.0
02/05/2023	22:20	00:10:00	40.1	1.8	9.08	20.10	8.3	98	1011.6	1.0 ÷ 2.0
02/05/2023	23:10	00:10:00	39.9	1.8	9.71	13.16	8.3	98	1011.8	1.0 ÷ 2.0
02/05/2023	23:30	00:10:00	40.8	1.8	9.83	16.52	8.3	98	1011.9	1.0 ÷ 2.0
02/05/2023	23:40	00:10:00	42.9	1.8	9.23	18.71	8.3	98	1011.8	1.0 ÷ 2.0
02/05/2023	23:50	00:10:00	41.8	1.8	10.22	21.05	8.3	98	1011.9	1.0 ÷ 2.0
03/05/2023	00:00	00:09:18	41.6	1.8	10.44	27.00	8.2	98	1011.9	1.0 ÷ 2.0
03/05/2023	00:20	00:10:00	46.9	1.8	10.84	20.84	8.2	98	1012.1	1.0 ÷ 2.0
03/05/2023	01:20	00:10:00	45.9	1.8	7.97	17.24	8.2	98	1012	1.0 ÷ 2.0
03/05/2023	01:30	00:10:00	44.5	1.8	7.62	12.41	8.1	98	1012	1.0 ÷ 2.0
03/05/2023	02:40	00:10:00	46.1	1.8	10.57	32.50	7.8	98	1011.7	1.0 ÷ 2.0
03/05/2023	02:50	00:10:00	43.5	1.8	9.46	26.29	7.8	98	1011.7	1.0 ÷ 2.0
03/05/2023	03:00	00:10:00	44.8	1.8	9.67	26.16	7.8	98	1011.7	1.0 ÷ 2.0
03/05/2023	03:10	00:10:00	45.5	1.8	10.00	31.54	7.8	98	1011.7	1.0 ÷ 2.0
03/05/2023	03:20	00:10:00	39.9	1.8	9.37	36.43	7.7	98	1011.6	1.0 ÷ 2.0
03/05/2023	03:40	00:10:00	51	1.8	9.82	27.46	7.7	98	1011.7	1.0 ÷ 2.0
03/05/2023	04:10	00:10:00	43	1.8	8.98	17.19	7.6	98	1011.9	1.0 ÷ 2.0
03/05/2023	05:10	00:10:00	44.7	1.8	10.37	20.22	7.3	98	1012	1.0 ÷ 2.0
03/05/2023	05:30	00:10:00	45.9	1.8	10.30	19.30	7.3	98	1012.3	1.0 ÷ 2.0
01/05/2023	22:40	00:10:00	45.8	2.2	10.37	8.33	7.3	97	1006.2	1.0 ÷ 2.0
01/05/2023	23:10	00:10:00	47.2	2.2	11.80	15.21	7.3	97	1006.2	2.0 ÷ 3.0
02/05/2023	00:40	00:10:00	46.3	2.2	11.59	12.08	7.3	97	1006.1	2.0 ÷ 3.0
02/05/2023	01:00	00:10:00	52.2	2.2	12.27	5.94	7.2	97	1005.9	2.0 ÷ 3.0

**TABELLA 3**  
**Riordino Livello di rumore residuo - Periodo Notturno**

Data [gg/mm/aaaa]	Ore [hh:mm]	Durata effettiva intervallo [hh:mm:ss]	L <sub>R</sub> [dB(A)]	v <sub>r</sub> [m/s]	V [m/s]	θ [°]	Temp. [°C]	Umid. [%]	Press. [Bar]	Classe di v <sub>r</sub> [m/s]
02/05/2023	01:30	00:10:00	48.7	2.2	13.28	11.78	7.1	97	1005.9	2.0 ÷ 3.0
02/05/2023	01:40	00:10:00	47.1	2.2	13.79	10.07	7.1	97	1005.9	2.0 ÷ 3.0
02/05/2023	02:10	00:10:00	46.5	2.2	12.65	10.66	7.1	97	1005.7	2.0 ÷ 3.0
02/05/2023	05:50	00:10:00	50.4	2.2	13.29	4.10	6.7	98	1005.2	2.0 ÷ 3.0
02/05/2023	22:00	00:10:00	44.3	2.2	8.56	23.09	8.3	98	1011.3	2.0 ÷ 3.0
03/05/2023	00:30	00:10:00	47.9	2.2	10.28	18.36	8.1	98	1012	2.0 ÷ 3.0
03/05/2023	00:40	00:10:00	48.3	2.2	9.76	18.67	8.2	98	1012	2.0 ÷ 3.0
03/05/2023	00:50	00:10:00	48.6	2.2	8.57	17.68	8.2	98	1012	2.0 ÷ 3.0
03/05/2023	01:00	00:10:00	45.3	2.2	8.52	17.90	8.2	98	1012	2.0 ÷ 3.0
03/05/2023	01:10	00:10:00	43.4	2.2	8.41	13.77	8.2	98	1012.1	2.0 ÷ 3.0
03/05/2023	01:40	00:10:00	48.9	2.2	9.28	18.69	8.1	98	1011.9	2.0 ÷ 3.0
03/05/2023	01:50	00:10:00	52.3	2.2	10.49	25.46	8	98	1011.9	2.0 ÷ 3.0
03/05/2023	02:30	00:10:00	45.9	2.2	11.89	32.40	7.8	98	1011.8	2.0 ÷ 3.0
03/05/2023	04:00	00:10:00	39.4	2.2	9.23	20.80	7.6	98	1011.8	2.0 ÷ 3.0
01/05/2023	23:20	00:10:00	44.4	2.7	10.96	14.63	7.3	97	1006.3	2.0 ÷ 3.0
02/05/2023	03:30	00:10:00	51.2	2.7	13.06	4.92	7.1	97	1004.9	2.0 ÷ 3.0
02/05/2023	05:20	00:10:00	44.7	2.7	11.26	356.84	6.8	97	1004.9	2.0 ÷ 3.0
03/05/2023	02:10	00:10:00	50.7	2.7	10.40	26.70	7.9	98	1011.7	2.0 ÷ 3.0
03/05/2023	02:20	00:10:00	47	2.7	11.12	30.38	7.9	98	1011.7	2.0 ÷ 3.0
03/05/2023	03:50	00:10:00	48.2	2.7	9.68	19.58	7.6	98	1011.7	2.0 ÷ 3.0
02/05/2023	01:10	00:10:00	53.6	3.1	12.98	10.97	7.1	97	1005.9	3.0 ÷ 4.0
03/05/2023	02:00	00:10:00	50	3.1	9.75	29.13	7.9	98	1011.8	3.0 ÷ 4.0

TABELLA 4

Calcolo del Livello di rumore residuo medio per classi di velocità - Periodo Notturno

Data [gg/mm/aaaa]	L <sub>R</sub> [dB(A)]	v <sub>r</sub> [m/s]	V [m/s]	Classe di v <sub>r</sub> [m/s]
dal 27/04/2023 al 01/05/2023	37.7	0.5	7.8	0.0 ÷ 1.0
dal 28/04/2023 al 03/05/2023	43.4	1.5	9.5	1.0 ÷ 2.0
dal 01/05/2023 al 03/05/2023	48.2	2.3	10.9	2.0 ÷ 3.0
dal 02/05/2023 al 03/05/2023	52.2	3.1	11.4	3.0 ÷ 4.0
-	-	-	-	4.0 ÷ 5.0



**TABELLA 2**  
**Livello di rumore residuo - Periodo Diurno**

Data [gg/mm/aaaa]	Ore [hh:mm]	Durata effettiva intervallo [hh:mm:ss]	L <sub>R</sub> [dB(A)]	v <sub>r</sub> [m/s]	V [m/s]	θ [°]	Temp. [°C]	Umid. [%]	Press. [Bar]
03/05/2023	13:50	00:10:00	42.8	1.3	6.84	17.56	14.2	89	1040.9
03/05/2023	14:00	00:10:00	39.3	0.9	5.90	28.91	13.9	85	1041.1
03/05/2023	14:10	00:10:00	40.2	0.9	6.05	14.88	14.7	79	1040.9
03/05/2023	14:20	00:10:00	44.3	0.9	4.54	37.92	14.9	79	1040.8
03/05/2023	14:30	00:10:00	40.1	1.3	5.42	13.03	14.3	76	1040.7
03/05/2023	14:40	00:10:00	43.5	1.8	5.98	18.19	14.3	78	1040.7
03/05/2023	14:50	00:10:00	41.3	1.3	5.55	27.09	14.6	78	1040.8
03/05/2023	15:00	00:10:00	43.7	1.3	6.06	7.24	14.6	75	1040.7
03/05/2023	15:10	00:10:00	45.3	1.3	6.65	23.53	14.4	76	1040.7
03/05/2023	15:20	00:10:00	44.8	1.8	5.81	25.09	14.4	75	1040.7
03/05/2023	15:30	00:09:56	42.1	1.3	5.95	17.33	14.8	73	1040.7
03/05/2023	15:40	00:09:47	42.6	1.3	6.23	37.35	14.8	73	1040.6
03/05/2023	15:50	00:09:44	42	1.3	4.77	18.57	15.1	69	1040.5
03/05/2023	16:00	00:10:00	41.5	0.9	5.90	13.45	15.4	69	1040.3
03/05/2023	16:10	00:08:27	43	1.3	5.31	18.12	16.1	71	1040.4
03/05/2023	16:20	00:10:00	42.7	1.8	5.04	20.97	16.3	69	1040.2
03/05/2023	16:30	00:10:00	44.4	1.3	4.75	26.92	16.2	69	1040.2
03/05/2023	16:40	00:10:00	41.6	1.3	4.20	23.02	16.8	65	1040.2
03/05/2023	16:50	00:10:00	37.5	1.8	4.20	23.82	17	67	1039.9
03/05/2023	17:00	00:10:00	41.8	0.9	5.46	26.31	17.3	64	1040.1
03/05/2023	17:10	00:09:37	41	1.3	4.51	28.70	17.3	63	1040.3
03/05/2023	17:20	00:10:00	41.8	1.3	4.66	18.26	17.1	62	1040.1
03/05/2023	17:30	00:10:00	49.6	0.9	4.36	16.14	17.1	62	1040.2
03/05/2023	17:40	00:10:00	48	0.9	4.09	13.62	17.2	62	1040.1
03/05/2023	17:50	00:10:00	46.3	1.3	5.16	6.94	16.9	57	1040.1
03/05/2023	18:00	00:10:00	43.2	1.3	4.68	7.16	16.7	60	1040.1
03/05/2023	18:10	00:10:00	41.9	0.9	5.52	16.84	16.8	60	1040.1
03/05/2023	18:20	00:10:00	41.9	0.9	6.45	18.95	16.6	62	1040
03/05/2023	18:30	00:10:00	42.4	1.8	6.66	23.69	16.5	58	1040
03/05/2023	18:40	00:10:00	44.4	1.3	7.47	24.80	16.7	57	1039.9
03/05/2023	18:50	00:10:00	43	0.9	8.09	23.41	16.6	58	1039.9
03/05/2023	19:00	00:10:00	43.2	0.9	8.18	38.28	16.3	58	1039.9
03/05/2023	19:10	00:10:00	43.5	1.3	8.26	38.51	16.1	59	1040
03/05/2023	19:20	00:10:00	41.6	0.9	8.89	39.02	15.8	60	1040.2
03/05/2023	19:30	00:09:52	46.1	0.9	9.03	42.98	15.7	61	1040.1
03/05/2023	19:40	00:10:00	43	0.9	9.02	50.00	15.4	61	1040.2
03/05/2023	19:50	00:10:00	44.6	0.4	9.21	50.89	14.9	63	1040.3
03/05/2023	20:00	00:10:00	43.9	0.4	9.46	49.61	14.4	63	1040.4
03/05/2023	20:10	00:09:21	43.4	0.9	8.96	51.01	13.6	66	1040.6
03/05/2023	20:20	00:09:59	42.8	0.9	7.95	52.14	13.1	69	1040.6
03/05/2023	20:30	00:10:00	46.3	0.9	4.71	48.99	12.4	70	1040.5
03/05/2023	21:00	00:10:00	44.1	0.4	3.50	7.64	11.5	76	1040.8
03/05/2023	21:10	00:10:00	42.1	0.4	4.34	358.67	11.1	77	1041
03/05/2023	21:20	00:10:00	39.1	0.4	4.29	1.50	10.9	78	1041.2
03/05/2023	21:30	00:10:00	38.1	0.4	3.89	357.42	10.6	80	1041.3
03/05/2023	21:40	00:10:00	36.6	0.4	3.86	358.82	10.4	80	1041.6
03/05/2023	21:50	00:10:00	38.4	0.4	4.46	4.70	10.4	80	1041.7
04/05/2023	06:20	00:08:50	42.6	0.4	3.82	58.89	7.1	90	1041.9
04/05/2023	06:30	00:08:23	42	0	4.10	56.64	6.9	91	1041.8
04/05/2023	06:40	00:10:00	48.2	0.4	3.94	49.98	6.8	91	1041.9
04/05/2023	06:50	00:09:39	45.5	0.4	4.16	49.35	6.9	91	1041.9
04/05/2023	07:00	00:10:00	41.8	0	4.43	57.33	7	91	1042
04/05/2023	07:10	00:10:00	42.7	0	3.75	54.09	6.9	91	1042.1

**TABELLA 2**  
**Livello di rumore residuo - Periodo Diurno**

Data	Ore	Durata effettiva intervallo	L <sub>R</sub>	v <sub>r</sub>	V	θ	Temp.	Umid.	Press.
[gg/mm/aaaa]	[hh:mm]	[hh:mm:ss]	[dB(A)]	[m/s]	[m/s]	[°]	[°C]	[%]	[Bar]
04/05/2023	07:20	00:10:00	43.4	0	3.10	45.40	6.8	92	1042.1
04/05/2023	07:40	00:10:00	41.1	0	3.51	37.90	7.3	92	1042.2
04/05/2023	07:50	00:10:00	44.2	0	3.05	31.49	7.6	91	1042.2
04/05/2023	08:00	00:10:00	41.5	0	3.46	32.27	8.2	90	1042.1
04/05/2023	08:10	00:10:00	43.2	0	3.56	32.88	9	88	1042.1
04/05/2023	08:20	00:10:00	40.4	0	3.17	35.93	10	86	1041.9
04/05/2023	08:30	00:10:00	38.7	0	3.32	40.91	10.5	83	1041.8
04/05/2023	08:40	00:10:00	40.8	0	3.16	25.75	11.3	80	1041.8
04/05/2023	08:50	00:10:00	38.5	0	3.44	30.29	11.7	79	1041.8
04/05/2023	09:00	00:09:30	41.1	0.4	3.47	15.02	11.8	77	1042
04/05/2023	09:10	00:10:00	39	0.4	3.62	10.53	11.9	76	1042
04/05/2023	09:20	00:10:00	41.7	0.4	3.52	11.56	12.3	77	1042
04/05/2023	09:30	00:05:17	37.2	0.4	3.71	1.01	12.9	75	1041.9
04/05/2023	09:40	00:10:00	42.3	0.4	3.93	359.15	13.5	71	1042
04/05/2023	09:50	00:10:00	37.8	0	3.93	5.38	13.8	72	1042.1
04/05/2023	10:00	00:10:00	40.6	0.4	4.01	18.34	13.8	67	1042
04/05/2023	10:10	00:08:36	39.1	0.4	4.26	1.95	14	70	1041.8
04/05/2023	10:20	00:10:00	40.4	0.9	4.90	15.51	14.4	66	1041.7
04/05/2023	10:30	00:10:00	39.4	0.9	5.40	358.05	14.8	65	1041.7
04/05/2023	10:40	00:10:00	39.2	0.4	4.72	353.67	15.4	66	1041.7
04/05/2023	10:50	00:10:00	40.7	0.9	4.45	356.40	15.7	61	1041.7
04/05/2023	11:00	00:07:19	39.8	0.9	4.64	345.52	16.1	64	1041.7
04/05/2023	11:10	00:10:00	40.8	0.9	4.46	335.20	16.7	64	1041.9
04/05/2023	11:20	00:10:00	40.3	1.3	4.33	32.42	16.6	62	1041.8
04/05/2023	11:30	00:10:00	40.6	1.3	4.19	50.41	17	66	1041.6
04/05/2023	11:40	00:10:00	40.3	0.9	3.35	9.92	17.7	57	1041.7
04/05/2023	11:50	00:10:00	41.2	0.9	4.43	325.42	18.2	61	1041.5
04/05/2023	12:00	00:09:09	39.7	0.9	4.22	352.47	18.3	56	1041.3
04/05/2023	12:10	00:06:48	42.2	0.9	4.93	348.92	18.4	53	1041
04/05/2023	12:20	00:09:17	44.7	1.3	4.24	338.71	18.6	55	1041.1
04/05/2023	12:30	00:10:00	41.3	0.9	4.23	332.21	19.1	52	1041.1
04/05/2023	12:40	00:09:31	43.6	0.9	4.73	0.47	18.9	47	1041.2
04/05/2023	12:50	00:10:00	42.4	0.9	4.41	337.43	18.9	52	1041.1
04/05/2023	13:00	00:10:00	39.7	1.3	3.82	350.21	19.1	49	1041
04/05/2023	13:10	00:10:00	44.8	0.9	4.76	0.24	19.5	52	1040.6
04/05/2023	13:20	00:08:24	42.5	0.9	3.33	16.80	20	50	1040.7
04/05/2023	13:30	00:09:44	39.3	1.3	3.61	50.65	19.8	51	1040.6
04/05/2023	13:40	00:10:00	39.1	0.9	3.96	7.03	20.2	48	1040.5
04/05/2023	13:50	00:10:00	46	1.3	3.23	1.75	20.1	47	1040.4
04/05/2023	14:00	00:10:00	38.2	1.3	4.06	359.07	20.4	46	1040.4
04/05/2023	16:00	00:10:00	41	0.9	3.23	148.24	21.6	47	1039.2
04/05/2023	16:10	00:10:00	43.6	0.9	3.27	154.94	22	44	1038.9
04/05/2023	16:50	00:10:00	38.7	0.9	3.61	124.73	21.3	50	1038.6
04/05/2023	17:00	00:09:14	42.6	0.4	4.20	121.13	20.9	49	1038.6
04/05/2023	17:10	00:10:00	45.8	0.9	3.61	120.25	20.2	53	1038.5
04/05/2023	17:20	00:10:00	46.7	0.9	3.42	123.74	20.3	50	1038.4
04/05/2023	17:30	00:10:00	45.4	0.4	3.49	116.48	19.9	52	1038.3
04/05/2023	17:50	00:10:00	46.2	0.9	3.05	124.60	19.3	54	1038.2
04/05/2023	18:00	00:10:00	47.2	0.9	3.16	125.78	18.7	56	1038.2
04/05/2023	18:30	00:10:00	47.1	0.4	3.36	126.49	17.7	58	1038.4
04/05/2023	18:40	00:10:00	48.2	0.4	3.13	129.43	17.6	58	1038.5
04/05/2023	20:00	00:08:39	45.7	0.4	3.02	122.16	15.8	64	1039
05/05/2023	08:20	00:10:00	41.2	0	3.32	243.99	12.3	82	1039.8

**TABELLA 2**  
**Livello di rumore residuo - Periodo Diurno**

Data [gg/mm/aaaa]	Ore [hh:mm]	Durata effettiva intervallo [hh:mm:ss]	L <sub>R</sub> [dB(A)]	v <sub>r</sub> [m/s]	V [m/s]	θ [°]	Temp. [°C]	Umid. [%]	Press. [Bar]
05/05/2023	09:20	00:07:49	46.5	0	3.12	272.82	16.6	65	1039.4
05/05/2023	09:50	00:04:25	42.7	0.4	3.44	243.06	17.3	61	1039.4
05/05/2023	10:30	00:10:00	45	0.4	3.11	155.73	18.8	55	1039.5
05/05/2023	10:40	00:10:00	42	0.4	3.77	122.87	18.8	59	1039.3
05/05/2023	10:50	00:10:00	45.8	0.4	3.66	140.96	19.2	53	1039.2
05/05/2023	11:00	00:10:00	41.7	0.4	3.90	131.68	19.7	55	1039.2
05/05/2023	11:10	00:10:00	44.2	0.4	3.66	133.13	19.8	55	1039.3
05/05/2023	11:20	00:10:00	43.1	0.9	4.09	129.62	19.6	49	1039.3
05/05/2023	11:30	00:10:00	46	0.4	5.19	116.91	19.9	50	1039.2
05/05/2023	11:40	00:01:59	45.6	0.4	5.41	121.00	20.3	52	1038.9
05/05/2023	12:00	00:06:32	44.2	0.4	5.82	126.34	20.7	49	1038.6
05/05/2023	12:20	00:04:45	39.4	0.9	6.26	133.07	20.6	50	1038.7
05/05/2023	12:30	00:10:00	42.6	0.4	5.93	137.15	20.4	46	1038.6
05/05/2023	12:40	00:10:00	41.6	0.9	5.88	140.42	20.3	45	1038.6
05/05/2023	12:50	00:10:00	43.1	0.9	5.99	139.37	20.8	55	1038.2
05/05/2023	13:00	00:10:00	41.2	0.9	6.58	132.68	21.6	47	1038.3
05/05/2023	13:10	00:10:00	39.7	0.4	7.03	145.25	21.6	54	1038
05/05/2023	13:20	00:10:00	38.5	1.3	6.54	143.66	21.4	51	1038.1
05/05/2023	13:30	00:09:12	40.4	1.3	5.93	137.87	21.5	52	1037.9
05/05/2023	13:40	00:10:00	40.9	1.3	6.33	131.01	21.4	51	1037.8
05/05/2023	13:50	00:10:00	45.6	1.8	6.38	134.98	21.7	50	1037.7
05/05/2023	14:00	00:10:00	41.1	1.3	6.70	137.35	21.9	48	1037.7
05/05/2023	14:10	00:10:00	38.2	1.3	6.28	140.09	21.9	48	1037.6
05/05/2023	14:20	00:10:00	44	1.3	6.31	139.89	21.9	49	1037.7
05/05/2023	14:30	00:10:00	36.7	1.8	6.58	140.19	21.9	47	1037.5
05/05/2023	14:40	00:10:00	37.6	0.9	6.49	132.97	22.1	48	1037.5
05/05/2023	14:50	00:10:00	43.3	0.9	6.85	137.24	22.2	49	1037.4
05/05/2023	15:00	00:10:00	43.4	1.3	6.51	138.54	22	50	1037.2
05/05/2023	15:10	00:10:00	40.9	1.3	6.16	148.05	22.2	49	1037.4
05/05/2023	15:20	00:10:00	40.5	1.8	5.82	138.23	21.9	48	1037.3
05/05/2023	15:30	00:10:00	42	1.3	5.94	133.70	22.1	49	1037.1
05/05/2023	15:40	00:10:00	39.9	1.3	6.13	135.26	22.2	47	1036.9
05/05/2023	15:50	00:10:00	40.9	1.3	6.18	134.13	22.2	48	1036.9
05/05/2023	16:00	00:09:47	41.5	1.8	5.62	145.64	21.8	49	1036.7
05/05/2023	16:10	00:10:00	44.1	1.3	5.92	140.62	21.8	48	1036.5
05/05/2023	16:20	00:10:00	42.5	1.3	6.82	136.84	21.4	48	1036.5
05/05/2023	16:30	00:10:00	41.3	1.3	6.64	136.06	21.4	49	1036.5
05/05/2023	16:40	00:05:02	40.7	1.8	6.37	136.43	21.4	49	1036.6
05/05/2023	17:20	00:00:18	42.8	1.3	6.07	130.88	21.2	47	1036.5
05/05/2023	17:30	00:10:00	45.2	1.3	6.44	131.42	21.1	48	1036.5
05/05/2023	17:40	00:01:35	46.9	1.3	6.36	134.91	21.1	48	1036.3
05/05/2023	17:50	00:01:31	47.2	1.3	6.42	131.48	21.1	50	1036.4
05/05/2023	19:00	00:00:54	48.9	1.3	7.08	127.92	18.8	54	1036.1
05/05/2023	19:10	00:10:00	48.8	0.9	7.26	124.63	18.6	56	1036.2
05/05/2023	19:20	00:10:00	46.7	0.9	7.24	132.32	18.2	56	1036.2
05/05/2023	19:30	00:10:00	48.8	0.9	6.59	138.33	17.9	58	1036.2
05/05/2023	19:40	00:10:00	49.7	1.3	5.93	148.53	17.7	57	1036
05/05/2023	19:50	00:10:00	48.6	0.9	5.77	153.68	17.4	58	1036.1
05/05/2023	20:00	00:10:00	46.1	0.9	5.84	149.43	16.9	59	1036.3
05/05/2023	20:10	00:10:00	43.3	0.9	5.72	147.23	16.2	61	1036.2
05/05/2023	20:20	00:10:00	47.1	0.9	5.52	143.01	15.7	63	1036.4
05/05/2023	20:30	00:10:00	49.7	0.9	5.43	142.88	15.4	64	1036.6
05/05/2023	20:40	00:09:26	48.7	0	5.29	141.51	15.2	65	1036.8

**TABELLA 2**  
**Livello di rumore residuo - Periodo Diurno**

Data	Ore	Durata effettiva intervallo	L <sub>R</sub>	v <sub>r</sub>	V	θ	Temp.	Umid.	Press.
[gg/mm/aaaa]	[hh:mm]	[hh:mm:ss]	[dB(A)]	[m/s]	[m/s]	[°]	[°C]	[%]	[Bar]
05/05/2023	20:50	00:09:56	48.8	0.4	5.14	147.17	14.9	65	1036.7
05/05/2023	21:00	00:10:00	48.1	0.4	4.82	161.11	14.7	65	1036.6
05/05/2023	21:10	00:10:00	47.6	0.4	4.63	151.94	14.5	65	1036.9
05/05/2023	21:20	00:10:00	48.9	0.4	4.63	141.93	14.2	67	1037.1
05/05/2023	21:30	00:10:00	47.2	0.4	4.44	134.53	13.8	69	1037
05/05/2023	21:40	00:10:00	47.1	0	4.95	136.03	13.8	69	1037.1
05/05/2023	21:50	00:10:00	46.9	0.4	4.34	133.77	13.7	69	1037.1
06/05/2023	06:00	00:10:00	42.8	0	4.33	116.45	10.6	69	1035.4
06/05/2023	06:10	00:10:00	45.3	0	4.27	119.19	10.6	70	1035.4
06/05/2023	06:20	00:10:00	45.7	0	4.36	115.74	10.8	71	1035.5
06/05/2023	06:30	00:09:43	42.3	0.4	4.21	115.74	11.1	71	1035.4
06/05/2023	06:40	00:09:25	41.3	0	4.17	115.10	11.3	71	1035.5
06/05/2023	06:50	00:10:00	39.3	0	3.60	120.66	11.4	71	1035.5
06/05/2023	07:00	00:10:00	38	0	3.30	117.14	11.6	71	1035.5
06/05/2023	07:10	00:10:00	47.9	0	3.11	110.98	11.7	72	1035.6
06/05/2023	07:20	00:10:00	42	0	3.45	113.49	12	70	1035.7
06/05/2023	07:40	00:10:00	42.6	0	3.36	118.80	12.8	66	1035.5
06/05/2023	07:50	00:10:00	42.9	0	3.26	120.00	13.2	66	1035.5
06/05/2023	08:10	00:10:00	44.4	0	3.16	137.22	13.7	67	1035.4
06/05/2023	08:30	00:10:00	42.9	0.4	3.14	129.95	14.8	62	1035.2
06/05/2023	08:40	00:10:00	41.2	0.4	3.54	132.71	15.6	61	1035.4
06/05/2023	08:50	00:10:00	42.8	0.4	3.88	137.63	16.4	58	1035.4
06/05/2023	09:00	00:10:00	43	0.4	4.33	143.29	16.8	58	1035.5
06/05/2023	09:10	00:10:00	46.6	0.4	4.01	136.69	16.8	58	1035.5
06/05/2023	09:20	00:10:00	48.8	0.4	3.98	130.59	17.1	53	1035.5
06/05/2023	09:30	00:10:00	46.9	0.9	4.40	120.68	17.7	46	1035.5
06/05/2023	09:40	00:08:03	48.1	0.4	4.68	126.94	18.3	44	1035.6
06/05/2023	10:00	00:04:39	41.3	0.9	5.00	131.78	19.2	45	1035.7
06/05/2023	10:10	00:10:00	41.8	0.4	4.68	131.64	19.6	40	1036
06/05/2023	10:20	00:09:41	44.8	0.4	4.87	138.45	19.8	44	1035.8
06/05/2023	10:30	00:04:13	40.7	0.9	4.78	132.07	19.8	40	1035.7
06/05/2023	10:40	00:10:00	41.4	0.4	4.42	133.97	20.2	44	1035.8
06/05/2023	10:50	00:10:00	42.3	0.9	4.27	122.57	20.3	42	1035.8
06/05/2023	11:00	00:10:00	44	0.9	4.72	120.76	20.4	47	1035.9
06/05/2023	11:10	00:10:00	46.5	0.9	4.66	129.88	20.4	44	1036
06/05/2023	11:20	00:10:00	44.2	0.9	4.88	135.45	20.6	44	1035.8
06/05/2023	11:30	00:09:25	41.7	0.9	4.72	134.16	20.8	45	1035.7
06/05/2023	11:40	00:10:00	40	0.9	5.17	136.83	20.8	43	1035.7
06/05/2023	11:50	00:10:00	44.3	1.3	5.51	132.00	20.7	43	1035.6
06/05/2023	12:00	00:09:24	39.7	0.9	5.87	133.07	20.8	43	1035.4
06/05/2023	12:10	00:10:00	41.3	1.3	6.08	131.79	20.9	42	1035.3
06/05/2023	12:20	00:10:00	39.2	1.3	5.84	133.00	21.1	48	1035.4
06/05/2023	12:30	00:10:00	41.5	1.3	5.89	134.03	21.4	44	1035.2
06/05/2023	12:40	00:10:00	39.5	0.9	6.54	134.16	21.6	46	1035.1
06/05/2023	12:50	00:10:00	40	1.3	6.45	136.39	21.7	42	1035
06/05/2023	13:00	00:10:00	38.1	1.3	6.53	133.09	21.7	46	1034.9
06/05/2023	13:10	00:10:00	39.5	1.3	7.08	134.62	21.8	48	1034.9
06/05/2023	13:20	00:10:00	41.2	0.9	7.00	138.17	22.2	47	1034.8
06/05/2023	13:30	00:10:00	42.1	1.3	6.87	139.02	22.2	44	1034.7
06/05/2023	13:40	00:10:00	42.2	1.3	7.22	132.28	22.4	47	1034.7
06/05/2023	13:50	00:10:00	39.1	0.9	7.27	131.50	22.6	49	1034.9
06/05/2023	14:00	00:10:00	46.8	1.8	7.05	135.54	22.3	46	1034.8
06/05/2023	14:10	00:09:23	45.2	1.3	6.95	138.93	22.6	46	1034.7

**TABELLA 2**  
**Livello di rumore residuo - Periodo Diurno**

Data [gg/mm/aaaa]	Ore [hh:mm]	Durata effettiva intervallo [hh:mm:ss]	L <sub>R</sub> [dB(A)]	v <sub>r</sub> [m/s]	V [m/s]	θ [°]	Temp. [°C]	Umid. [%]	Press. [Bar]
06/05/2023	14:20	00:10:00	43.1	1.8	7.11	133.60	22.3	47	1034.8
06/05/2023	14:30	00:10:00	42.7	1.8	7.23	126.68	22.2	46	1034.7
06/05/2023	14:40	00:10:00	44.4	1.3	6.96	134.79	22.2	47	1034.6
06/05/2023	14:50	00:10:00	45.7	1.3	7.08	136.71	22.1	48	1034.6
06/05/2023	15:00	00:10:00	47	1.3	7.16	136.53	22.3	47	1034.4
06/05/2023	15:10	00:10:00	43.8	1.8	7.36	132.59	22.2	47	1034.4
06/05/2023	15:20	00:10:00	45.6	1.3	7.41	134.19	22	46	1034.4
06/05/2023	15:30	00:10:00	44.5	1.3	7.36	136.50	21.9	47	1034.4
06/05/2023	15:40	00:10:00	45.5	1.8	7.09	134.39	22.2	47	1034
06/05/2023	15:50	00:10:00	44.1	1.8	7.39	133.86	21.7	48	1034
06/05/2023	16:00	00:10:00	41.4	1.8	7.69	133.33	21.4	45	1034
06/05/2023	16:10	00:10:00	43.7	1.3	7.20	133.31	21.6	46	1034
06/05/2023	16:20	00:10:00	45.5	1.3	7.11	136.63	21.8	46	1033.9
06/05/2023	16:30	00:10:00	43.3	1.3	7.05	134.85	21.8	46	1033.9
06/05/2023	16:40	00:09:46	42.1	1.8	7.16	132.46	21.6	45	1033.9
06/05/2023	16:50	00:10:00	46.2	1.3	6.81	130.67	21.5	45	1034.1
06/05/2023	17:00	00:10:00	45	1.8	7.19	131.63	21.3	46	1033.8
06/05/2023	17:10	00:10:00	46.7	1.3	7.39	131.62	21.3	44	1033.8
06/05/2023	17:20	00:02:59	45.2	1.8	7.48	127.36	21.2	44	1033.9
06/05/2023	17:30	00:01:34	42.6	1.3	7.52	128.93	21.3	44	1034.1
06/05/2023	17:50	00:00:43	42.9	1.8	8.10	128.73	20.6	46	1034
06/05/2023	18:00	00:06:01	44.8	1.3	8.13	128.96	20.6	47	1033.9
06/05/2023	19:50	00:00:57	49.3	0.9	6.57	128.94	17.8	54	1033.6
06/05/2023	20:00	00:02:55	49.8	0.9	7.02	128.73	17.2	54	1033.9
06/05/2023	21:40	00:10:00	46.1	0.4	7.49	137.72	14.9	56	1034.8
06/05/2023	21:50	00:10:00	47.2	0.9	7.43	136.29	15.1	56	1034.7
07/05/2023	07:50	00:10:00	42.5	0	3.66	140.38	12.3	70	1035
07/05/2023	08:00	00:10:00	45.3	0	3.01	140.16	12.3	66	1035.1
07/05/2023	08:20	00:10:00	41.7	0.4	3.05	133.66	14.3	59	1035.2
07/05/2023	08:30	00:10:00	43.9	0	3.49	143.12	15.1	57	1035.3
07/05/2023	08:40	00:10:00	45	0	3.51	134.96	15.7	58	1035.3
07/05/2023	08:50	00:10:00	45.7	0	4.34	141.83	16	57	1035.3
07/05/2023	09:00	00:10:00	45.4	0	5.43	133.60	16.7	58	1035.4
07/05/2023	09:10	00:10:00	45.9	0	5.94	136.80	17	57	1035.5
07/05/2023	09:20	00:09:38	49.4	0.4	7.08	132.54	17.3	59	1035.6
07/05/2023	09:30	00:09:50	48.7	0.4	7.18	135.05	17.2	59	1035.3
07/05/2023	09:40	00:10:00	47.5	0	7.17	128.42	17.7	54	1035.3
07/05/2023	09:50	00:10:00	47.3	0	7.06	132.99	18.2	44	1035.4
07/05/2023	10:00	00:10:00	48.4	0.4	7.84	135.19	18.6	48	1035.5
07/05/2023	10:10	00:10:00	45.8	0.4	7.35	131.76	18.9	42	1035.6
07/05/2023	10:20	00:10:00	48	0.4	6.85	137.00	18.9	44	1035.7
07/05/2023	10:30	00:10:00	47.3	0.4	7.12	134.73	18.6	50	1035.8
07/05/2023	10:40	00:10:00	42.7	0	7.00	133.74	18.8	51	1035.8
07/05/2023	10:50	00:10:00	42.1	0.9	7.37	138.06	19.2	38	1035.5
07/05/2023	11:00	00:10:00	42.5	0.9	7.16	138.93	19.7	35	1035.4
07/05/2023	11:10	00:09:00	44.8	1.3	7.40	137.92	19.9	36	1035.3
07/05/2023	11:20	00:10:00	42.9	0.9	7.56	131.36	20.2	35	1035.4
07/05/2023	11:30	00:10:00	42.1	1.3	6.73	131.71	20.3	33	1035.5
07/05/2023	11:40	00:10:00	45.2	0.9	6.97	138.49	20.4	37	1035.4
07/05/2023	11:50	00:10:00	47.6	1.8	6.87	132.33	20.2	37	1035.5
07/05/2023	12:00	00:07:14	45.8	1.3	6.56	136.79	19.7	40	1035.4
07/05/2023	12:10	00:10:00	45.4	1.3	7.07	137.90	19.4	43	1035.5
07/05/2023	12:20	00:09:30	44.1	1.3	6.97	133.42	19.7	44	1035.5



**TABELLA 2**  
**Livello di rumore residuo - Periodo Diurno**

Data [gg/mm/aaaa]	Ore [hh:mm]	Durata effettiva intervallo [hh:mm:ss]	L <sub>R</sub> [dB(A)]	v <sub>r</sub> [m/s]	V [m/s]	θ [°]	Temp. [°C]	Umid. [%]	Press. [Bar]
07/05/2023	12:30	00:10:00	43.8	1.8	7.09	132.16	19.9	43	1035.3
07/05/2023	12:40	00:10:00	42.9	1.3	6.97	133.27	20.1	38	1035.2
07/05/2023	12:50	00:06:16	43.4	1.8	6.52	132.68	20.4	40	1035.1
07/05/2023	13:20	00:07:25	42.6	1.3	7.02	141.40	19.9	41	1035.1
07/05/2023	13:30	00:10:00	39.9	1.3	7.00	139.85	20.5	39	1035.1
07/05/2023	13:40	00:10:00	42.4	0.9	7.02	143.60	20.4	36	1035.1
07/05/2023	13:50	00:10:00	38.5	1.3	7.41	141.22	19.7	38	1035.1
07/05/2023	14:00	00:10:00	41.3	1.3	8.09	141.59	19.7	37	1035.2
07/05/2023	14:10	00:10:00	43.1	1.3	8.33	142.75	19.6	44	1035.3
07/05/2023	14:20	00:10:00	43.5	1.3	8.72	138.96	20.4	39	1035.3
07/05/2023	14:30	00:09:18	46.1	1.3	8.53	142.43	21.3	41	1035.2
07/05/2023	14:40	00:08:49	45.4	1.3	9.11	142.77	20.7	40	1035.4
07/05/2023	14:50	00:10:00	45	1.3	8.57	145.62	20.5	41	1035.3
07/05/2023	15:00	00:09:04	44.1	1.8	8.33	141.91	21.2	39	1035.2
07/05/2023	15:10	00:10:00	44.4	1.8	8.46	140.24	20.3	38	1035.1
07/05/2023	15:20	00:10:00	44.7	1.3	8.82	140.70	21.1	39	1035.2
07/05/2023	15:30	00:06:49	45	1.3	8.84	145.42	22.1	39	1035.2
07/05/2023	16:30	00:04:59	45.7	2.2	7.86	143.51	20.9	41	1034.7
07/05/2023	16:50	00:00:33	45	1.8	7.42	142.50	21.2	42	1034.7
07/05/2023	17:00	00:07:51	47.6	2.2	7.61	142.73	21.2	41	1034.6
07/05/2023	17:10	00:10:00	49.9	1.8	7.46	143.55	21.1	40	1034.4
07/05/2023	17:20	00:09:30	51.8	1.3	6.78	143.80	21.2	40	1034.4
07/05/2023	17:30	00:09:24	51.3	1.3	7.30	142.32	21.3	40	1034.5
07/05/2023	17:40	00:08:28	48.3	1.8	7.20	137.25	21.2	39	1034.6
07/05/2023	17:50	00:10:00	47.4	1.3	6.98	136.44	21.4	40	1034.7
07/05/2023	18:00	00:10:00	50.4	1.3	6.93	134.64	21.6	40	1034.5
07/05/2023	18:10	00:10:00	52.2	1.3	6.32	133.60	21.4	42	1034.4
07/05/2023	18:20	00:10:00	54.2	1.3	6.69	126.28	20.7	42	1034.5
07/05/2023	18:30	00:10:00	55	1.3	7.41	125.27	20.7	43	1034.5
07/05/2023	18:40	00:10:00	55.3	1.3	7.30	128.24	20	43	1034.6
07/05/2023	18:50	00:10:00	53.9	1.3	7.58	130.85	19.1	46	1034.6
07/05/2023	19:00	00:10:00	52.6	0.9	7.66	127.39	18.7	47	1034.8
07/05/2023	19:10	00:10:00	53.5	0.9	6.87	129.70	18.4	47	1034.7
07/05/2023	19:20	00:09:50	53.6	0.9	7.20	131.60	18.2	49	1034.8
07/05/2023	19:30	00:09:49	52.7	0.9	7.00	128.66	17.9	50	1034.6
07/05/2023	19:40	00:10:00	52.2	0.9	7.54	128.18	17.7	50	1034.6
07/05/2023	19:50	00:10:00	51	0.9	7.11	126.79	17.3	51	1034.8
07/05/2023	20:00	00:10:00	53.6	0.9	6.75	125.35	16.9	52	1034.9
07/05/2023	20:10	00:10:00	50.9	0.9	6.64	125.31	16.7	51	1035
07/05/2023	20:20	00:10:00	52.4	0.9	7.59	129.67	16.4	51	1035
07/05/2023	20:30	00:10:00	54.3	0.9	7.97	127.96	16	52	1035
07/05/2023	20:40	00:10:00	55.3	0.9	7.99	129.62	15.6	54	1035
07/05/2023	20:50	00:10:00	55.6	0.9	8.14	131.82	15.4	54	1035.1
07/05/2023	21:00	00:10:00	55.6	0.9	8.91	134.15	15.2	57	1035.4
07/05/2023	21:10	00:10:00	53.6	1.3	8.30	136.00	15.1	57	1035.5
07/05/2023	21:20	00:10:00	54.4	0.9	8.31	136.15	14.9	57	1035.5
07/05/2023	21:30	00:10:00	54.3	0.9	7.49	138.96	14.8	59	1035.5
07/05/2023	21:40	00:10:00	54.3	0.9	7.84	141.35	14.4	61	1035.2
07/05/2023	21:50	00:10:00	53.9	0.9	8.61	138.53	14.4	60	1035.7
08/05/2023	06:00	00:08:05	42.7	0.4	6.16	42.17	9.6	77	1036.2
08/05/2023	06:10	00:10:00	44.6	0	4.82	39.69	9.4	78	1036.2
08/05/2023	06:20	00:10:00	42.2	0	4.97	45.49	9.2	79	1036.5
08/05/2023	06:30	00:10:00	45.6	0	4.50	45.43	9.1	79	1036.6

**TABELLA 2**  
**Livello di rumore residuo - Periodo Diurno**

<b>Data</b> <b>[gg/mm/aaaa]</b>	<b>Ore</b> <b>[hh:mm]</b>	<b>Durata effettiva</b> <b>intervallo</b> <b>[hh:mm:ss]</b>	<b>L<sub>R</sub></b> <b>[dB(A)]</b>	<b>v<sub>r</sub></b> <b>[m/s]</b>	<b>V</b> <b>[m/s]</b>	<b>θ</b> <b>[°]</b>	<b>Temp.</b> <b>[°C]</b>	<b>Umid.</b> <b>[%]</b>	<b>Press.</b> <b>[Bar]</b>
08/05/2023	06:40	00:10:00	45.8	0.4	4.37	42.56	8.9	80	1036.6
08/05/2023	06:50	00:10:00	44	0.4	3.60	37.67	9.1	81	1036.5
08/05/2023	07:00	00:10:00	43.4	0	3.54	23.27	9.1	80	1036.6
08/05/2023	07:10	00:10:00	46.1	0	4.09	27.51	9.4	79	1036.6
08/05/2023	07:20	00:10:00	45.1	0	4.36	25.32	9.8	79	1036.6
08/05/2023	07:30	00:09:40	44.9	0	3.71	21.41	10.3	79	1036.4
08/05/2023	07:40	00:10:00	40.9	0	4.18	13.80	10.6	78	1036.4
08/05/2023	07:50	00:10:00	41.3	0	4.90	11.24	10.9	74	1036.5
08/05/2023	08:00	00:10:00	42.2	0	5.23	11.77	11.3	75	1036.5
08/05/2023	08:10	00:10:00	43.7	0	6.61	8.87	12	75	1036.5
08/05/2023	08:20	00:10:00	45.4	0	6.49	26.30	12.6	74	1036.4
08/05/2023	08:30	00:10:00	47.4	0.4	6.52	23.48	13.1	70	1036.3
08/05/2023	08:40	00:10:00	46	0	5.90	21.85	13.6	66	1036.2
08/05/2023	08:50	00:10:00	47.7	0	6.52	22.24	14.4	67	1036.4
08/05/2023	09:00	00:10:00	47.1	0.4	5.55	28.36	14.8	63	1036.4
08/05/2023	09:10	00:09:38	54	0.4	4.98	33.45	15	64	1036.4
08/05/2023	09:20	00:10:00	53.5	0.9	4.97	12.16	14.9	67	1036.5
08/05/2023	09:30	00:09:43	50.1	0.9	5.05	11.19	15.2	71	1036.5
08/05/2023	09:40	00:10:00	51.3	0.4	5.15	16.61	15.7	65	1036.7
08/05/2023	09:50	00:10:00	50.6	0.4	4.62	11.78	15.7	69	1036.8
08/05/2023	10:00	00:10:00	52.9	0.9	4.71	17.51	16	69	1036.7
08/05/2023	10:10	00:10:00	51.3	0.9	5.22	14.06	16.2	70	1036.7
08/05/2023	10:20	00:10:00	46.4	1.3	5.29	8.17	16.3	71	1036.4

**TABELLA 3**  
**Riordino Livello di rumore residuo - Periodo Diurno**

Data [gg/mm/aaaa]	Ore [hh:mm]	Durata effettiva intervallo [hh:mm:ss]	L <sub>R</sub> [dB(A)]	v <sub>r</sub> [m/s]	V [m/s]	θ [°]	Temp. [°C]	Umid. [%]	Press. [Bar]	Classe di v <sub>r</sub> [m/s]
04/05/2023	06:30	00:08:23	42	0	4.10	56.64	6.9	91	1041.8	0.0 ÷ 1.0
04/05/2023	07:00	00:10:00	41.8	0	4.43	57.33	7	91	1042	0.0 ÷ 1.0
04/05/2023	07:10	00:10:00	42.7	0	3.75	54.09	6.9	91	1042.1	0.0 ÷ 1.0
04/05/2023	07:20	00:10:00	43.4	0	3.10	45.40	6.8	92	1042.1	0.0 ÷ 1.0
04/05/2023	07:40	00:10:00	41.1	0	3.51	37.90	7.3	92	1042.2	0.0 ÷ 1.0
04/05/2023	07:50	00:10:00	44.2	0	3.05	31.49	7.6	91	1042.2	0.0 ÷ 1.0
04/05/2023	08:00	00:10:00	41.5	0	3.46	32.27	8.2	90	1042.1	0.0 ÷ 1.0
04/05/2023	08:10	00:10:00	43.2	0	3.56	32.88	9	88	1042.1	0.0 ÷ 1.0
04/05/2023	08:20	00:10:00	40.4	0	3.17	35.93	10	86	1041.9	0.0 ÷ 1.0
04/05/2023	08:30	00:10:00	38.7	0	3.32	40.91	10.5	83	1041.8	0.0 ÷ 1.0
04/05/2023	08:40	00:10:00	40.8	0	3.16	25.75	11.3	80	1041.8	0.0 ÷ 1.0
04/05/2023	08:50	00:10:00	38.5	0	3.44	30.29	11.7	79	1041.8	0.0 ÷ 1.0
04/05/2023	09:50	00:10:00	37.8	0	3.93	5.38	13.8	72	1042.1	0.0 ÷ 1.0
05/05/2023	08:20	00:10:00	41.2	0	3.32	243.99	12.3	82	1039.8	0.0 ÷ 1.0
05/05/2023	09:20	00:07:49	46.5	0	3.12	272.82	16.6	65	1039.4	0.0 ÷ 1.0
05/05/2023	20:40	00:09:26	48.7	0	5.29	141.51	15.2	65	1036.8	0.0 ÷ 1.0
05/05/2023	21:40	00:10:00	47.1	0	4.95	136.03	13.8	69	1037.1	0.0 ÷ 1.0
06/05/2023	06:00	00:10:00	42.8	0	4.33	116.45	10.6	69	1035.4	0.0 ÷ 1.0
06/05/2023	06:10	00:10:00	45.3	0	4.27	119.19	10.6	70	1035.4	0.0 ÷ 1.0
06/05/2023	06:20	00:10:00	45.7	0	4.36	115.74	10.8	71	1035.5	0.0 ÷ 1.0
06/05/2023	06:40	00:09:25	41.3	0	4.17	115.10	11.3	71	1035.5	0.0 ÷ 1.0
06/05/2023	06:50	00:10:00	39.3	0	3.60	120.66	11.4	71	1035.5	0.0 ÷ 1.0
06/05/2023	07:00	00:10:00	38	0	3.30	117.14	11.6	71	1035.5	0.0 ÷ 1.0
06/05/2023	07:10	00:10:00	47.9	0	3.11	110.98	11.7	72	1035.6	0.0 ÷ 1.0
06/05/2023	07:20	00:10:00	42	0	3.45	113.49	12	70	1035.7	0.0 ÷ 1.0
06/05/2023	07:40	00:10:00	42.6	0	3.36	118.80	12.8	66	1035.5	0.0 ÷ 1.0
06/05/2023	07:50	00:10:00	42.9	0	3.26	120.00	13.2	66	1035.5	0.0 ÷ 1.0
06/05/2023	08:10	00:10:00	44.4	0	3.16	137.22	13.7	67	1035.4	0.0 ÷ 1.0
07/05/2023	07:50	00:10:00	42.5	0	3.66	140.38	12.3	70	1035	0.0 ÷ 1.0
07/05/2023	08:00	00:10:00	45.3	0	3.01	140.16	12.3	66	1035.1	0.0 ÷ 1.0
07/05/2023	08:30	00:10:00	43.9	0	3.49	143.12	15.1	57	1035.3	0.0 ÷ 1.0
07/05/2023	08:40	00:10:00	45	0	3.51	134.96	15.7	58	1035.3	0.0 ÷ 1.0
07/05/2023	08:50	00:10:00	45.7	0	4.34	141.83	16	57	1035.3	0.0 ÷ 1.0
07/05/2023	09:00	00:10:00	45.4	0	5.43	133.60	16.7	58	1035.4	0.0 ÷ 1.0
07/05/2023	09:10	00:10:00	45.9	0	5.94	136.80	17	57	1035.5	0.0 ÷ 1.0
07/05/2023	09:40	00:10:00	47.5	0	7.17	128.42	17.7	54	1035.3	0.0 ÷ 1.0
07/05/2023	09:50	00:10:00	47.3	0	7.06	132.99	18.2	44	1035.4	0.0 ÷ 1.0
07/05/2023	10:40	00:10:00	42.7	0	7.00	133.74	18.8	51	1035.8	0.0 ÷ 1.0
08/05/2023	06:10	00:10:00	44.6	0	4.82	39.69	9.4	78	1036.2	0.0 ÷ 1.0
08/05/2023	06:20	00:10:00	42.2	0	4.97	45.49	9.2	79	1036.5	0.0 ÷ 1.0
08/05/2023	06:30	00:10:00	45.6	0	4.50	45.43	9.1	79	1036.6	0.0 ÷ 1.0
08/05/2023	07:00	00:10:00	43.4	0	3.54	23.27	9.1	80	1036.6	0.0 ÷ 1.0
08/05/2023	07:10	00:10:00	46.1	0	4.09	27.51	9.4	79	1036.6	0.0 ÷ 1.0
08/05/2023	07:20	00:10:00	45.1	0	4.36	25.32	9.8	79	1036.6	0.0 ÷ 1.0
08/05/2023	07:30	00:09:40	44.9	0	3.71	21.41	10.3	79	1036.4	0.0 ÷ 1.0
08/05/2023	07:40	00:10:00	40.9	0	4.18	13.80	10.6	78	1036.4	0.0 ÷ 1.0
08/05/2023	07:50	00:10:00	41.3	0	4.90	11.24	10.9	74	1036.5	0.0 ÷ 1.0
08/05/2023	08:00	00:10:00	42.2	0	5.23	11.77	11.3	75	1036.5	0.0 ÷ 1.0
08/05/2023	08:10	00:10:00	43.7	0	6.61	8.87	12	75	1036.5	0.0 ÷ 1.0
08/05/2023	08:20	00:10:00	45.4	0	6.49	26.30	12.6	74	1036.4	0.0 ÷ 1.0
08/05/2023	08:40	00:10:00	46	0	5.90	21.85	13.6	66	1036.2	0.0 ÷ 1.0
08/05/2023	08:50	00:10:00	47.7	0	6.52	22.24	14.4	67	1036.4	0.0 ÷ 1.0
03/05/2023	19:50	00:10:00	44.6	0.4	9.21	50.89	14.9	63	1040.3	0.0 ÷ 1.0

**TABELLA 3**  
**Riordino Livello di rumore residuo - Periodo Diurno**

Data [gg/mm/aaaa]	Ore [hh:mm]	Durata effettiva intervallo [hh:mm:ss]	L <sub>R</sub> [dB(A)]	v <sub>r</sub> [m/s]	V [m/s]	θ [°]	Temp. [°C]	Umid. [%]	Press. [Bar]	Classe di v <sub>r</sub> [m/s]
03/05/2023	20:00	00:10:00	43.9	0.4	9.46	49.61	14.4	63	1040.4	0.0 ÷ 1.0
03/05/2023	21:00	00:10:00	44.1	0.4	3.50	7.64	11.5	76	1040.8	0.0 ÷ 1.0
03/05/2023	21:10	00:10:00	42.1	0.4	4.34	358.67	11.1	77	1041	0.0 ÷ 1.0
03/05/2023	21:20	00:10:00	39.1	0.4	4.29	1.50	10.9	78	1041.2	0.0 ÷ 1.0
03/05/2023	21:30	00:10:00	38.1	0.4	3.89	357.42	10.6	80	1041.3	0.0 ÷ 1.0
03/05/2023	21:40	00:10:00	36.6	0.4	3.86	358.82	10.4	80	1041.6	0.0 ÷ 1.0
03/05/2023	21:50	00:10:00	38.4	0.4	4.46	4.70	10.4	80	1041.7	0.0 ÷ 1.0
04/05/2023	06:20	00:08:50	42.6	0.4	3.82	58.89	7.1	90	1041.9	0.0 ÷ 1.0
04/05/2023	06:40	00:10:00	48.2	0.4	3.94	49.98	6.8	91	1041.9	0.0 ÷ 1.0
04/05/2023	06:50	00:09:39	45.5	0.4	4.16	49.35	6.9	91	1041.9	0.0 ÷ 1.0
04/05/2023	09:00	00:09:30	41.1	0.4	3.47	15.02	11.8	77	1042	0.0 ÷ 1.0
04/05/2023	09:10	00:10:00	39	0.4	3.62	10.53	11.9	76	1042	0.0 ÷ 1.0
04/05/2023	09:20	00:10:00	41.7	0.4	3.52	11.56	12.3	77	1042	0.0 ÷ 1.0
04/05/2023	09:30	00:05:17	37.2	0.4	3.71	1.01	12.9	75	1041.9	0.0 ÷ 1.0
04/05/2023	09:40	00:10:00	42.3	0.4	3.93	359.15	13.5	71	1042	0.0 ÷ 1.0
04/05/2023	10:00	00:10:00	40.6	0.4	4.01	18.34	13.8	67	1042	0.0 ÷ 1.0
04/05/2023	10:10	00:08:36	39.1	0.4	4.26	1.95	14	70	1041.8	0.0 ÷ 1.0
04/05/2023	10:40	00:10:00	39.2	0.4	4.72	353.67	15.4	66	1041.7	0.0 ÷ 1.0
04/05/2023	17:00	00:09:14	42.6	0.4	4.20	121.13	20.9	49	1038.6	0.0 ÷ 1.0
04/05/2023	17:30	00:10:00	45.4	0.4	3.49	116.48	19.9	52	1038.3	0.0 ÷ 1.0
04/05/2023	18:30	00:10:00	47.1	0.4	3.36	126.49	17.7	58	1038.4	0.0 ÷ 1.0
04/05/2023	18:40	00:10:00	48.2	0.4	3.13	129.43	17.6	58	1038.5	0.0 ÷ 1.0
04/05/2023	20:00	00:08:39	45.7	0.4	3.02	122.16	15.8	64	1039	0.0 ÷ 1.0
05/05/2023	09:50	00:04:25	42.7	0.4	3.44	243.06	17.3	61	1039.4	0.0 ÷ 1.0
05/05/2023	10:30	00:10:00	45	0.4	3.11	155.73	18.8	55	1039.5	0.0 ÷ 1.0
05/05/2023	10:40	00:10:00	42	0.4	3.77	122.87	18.8	59	1039.3	0.0 ÷ 1.0
05/05/2023	10:50	00:10:00	45.8	0.4	3.66	140.96	19.2	53	1039.2	0.0 ÷ 1.0
05/05/2023	11:00	00:10:00	41.7	0.4	3.90	131.68	19.7	55	1039.2	0.0 ÷ 1.0
05/05/2023	11:10	00:10:00	44.2	0.4	3.66	133.13	19.8	55	1039.3	0.0 ÷ 1.0
05/05/2023	11:30	00:10:00	46	0.4	5.19	116.91	19.9	50	1039.2	0.0 ÷ 1.0
05/05/2023	11:40	00:01:59	45.6	0.4	5.41	121.00	20.3	52	1038.9	0.0 ÷ 1.0
05/05/2023	12:00	00:06:32	44.2	0.4	5.82	126.34	20.7	49	1038.6	0.0 ÷ 1.0
05/05/2023	12:30	00:10:00	42.6	0.4	5.93	137.15	20.4	46	1038.6	0.0 ÷ 1.0
05/05/2023	13:10	00:10:00	39.7	0.4	7.03	145.25	21.6	54	1038	0.0 ÷ 1.0
05/05/2023	20:50	00:09:56	48.8	0.4	5.14	147.17	14.9	65	1036.7	0.0 ÷ 1.0
05/05/2023	21:00	00:10:00	48.1	0.4	4.82	161.11	14.7	65	1036.6	0.0 ÷ 1.0
05/05/2023	21:10	00:10:00	47.6	0.4	4.63	151.94	14.5	65	1036.9	0.0 ÷ 1.0
05/05/2023	21:20	00:10:00	48.9	0.4	4.63	141.93	14.2	67	1037.1	0.0 ÷ 1.0
05/05/2023	21:30	00:10:00	47.2	0.4	4.44	134.53	13.8	69	1037	0.0 ÷ 1.0
05/05/2023	21:50	00:10:00	46.9	0.4	4.34	133.77	13.7	69	1037.1	0.0 ÷ 1.0
06/05/2023	06:30	00:09:43	42.3	0.4	4.21	115.74	11.1	71	1035.4	0.0 ÷ 1.0
06/05/2023	08:30	00:10:00	42.9	0.4	3.14	129.95	14.8	62	1035.2	0.0 ÷ 1.0
06/05/2023	08:40	00:10:00	41.2	0.4	3.54	132.71	15.6	61	1035.4	0.0 ÷ 1.0
06/05/2023	08:50	00:10:00	42.8	0.4	3.88	137.63	16.4	58	1035.4	0.0 ÷ 1.0
06/05/2023	09:00	00:10:00	43	0.4	4.33	143.29	16.8	58	1035.5	0.0 ÷ 1.0
06/05/2023	09:10	00:10:00	46.6	0.4	4.01	136.69	16.8	58	1035.5	0.0 ÷ 1.0
06/05/2023	09:20	00:10:00	48.8	0.4	3.98	130.59	17.1	53	1035.5	0.0 ÷ 1.0
06/05/2023	09:40	00:08:03	48.1	0.4	4.68	126.94	18.3	44	1035.6	0.0 ÷ 1.0
06/05/2023	10:10	00:10:00	41.8	0.4	4.68	131.64	19.6	40	1036	0.0 ÷ 1.0
06/05/2023	10:20	00:09:41	44.8	0.4	4.87	138.45	19.8	44	1035.8	0.0 ÷ 1.0
06/05/2023	10:40	00:10:00	41.4	0.4	4.42	133.97	20.2	44	1035.8	0.0 ÷ 1.0
06/05/2023	21:40	00:10:00	46.1	0.4	7.49	137.72	14.9	56	1034.8	0.0 ÷ 1.0
07/05/2023	08:20	00:10:00	41.7	0.4	3.05	133.66	14.3	59	1035.2	0.0 ÷ 1.0

**TABELLA 3**  
**Riordino Livello di rumore residuo - Periodo Diurno**

Data [gg/mm/aaaa]	Ore [hh:mm]	Durata effettiva intervallo [hh:mm:ss]	L <sub>R</sub> [dB(A)]	v <sub>r</sub> [m/s]	V [m/s]	θ [°]	Temp. [°C]	Umid. [%]	Press. [Bar]	Classe di v <sub>r</sub> [m/s]
07/05/2023	09:20	00:09:38	49.4	0.4	7.08	132.54	17.3	59	1035.6	0.0 ÷ 1.0
07/05/2023	09:30	00:09:50	48.7	0.4	7.18	135.05	17.2	59	1035.3	0.0 ÷ 1.0
07/05/2023	10:00	00:10:00	48.4	0.4	7.84	135.19	18.6	48	1035.5	0.0 ÷ 1.0
07/05/2023	10:10	00:10:00	45.8	0.4	7.35	131.76	18.9	42	1035.6	0.0 ÷ 1.0
07/05/2023	10:20	00:10:00	48	0.4	6.85	137.00	18.9	44	1035.7	0.0 ÷ 1.0
07/05/2023	10:30	00:10:00	47.3	0.4	7.12	134.73	18.6	50	1035.8	0.0 ÷ 1.0
08/05/2023	06:00	00:08:05	42.7	0.4	6.16	42.17	9.6	77	1036.2	0.0 ÷ 1.0
08/05/2023	06:40	00:10:00	45.8	0.4	4.37	42.56	8.9	80	1036.6	0.0 ÷ 1.0
08/05/2023	06:50	00:10:00	44	0.4	3.60	37.67	9.1	81	1036.5	0.0 ÷ 1.0
08/05/2023	08:30	00:10:00	47.4	0.4	6.52	23.48	13.1	70	1036.3	0.0 ÷ 1.0
08/05/2023	09:00	00:10:00	47.1	0.4	5.55	28.36	14.8	63	1036.4	0.0 ÷ 1.0
08/05/2023	09:10	00:09:38	54	0.4	4.98	33.45	15	64	1036.4	0.0 ÷ 1.0
08/05/2023	09:40	00:10:00	51.3	0.4	5.15	16.61	15.7	65	1036.7	0.0 ÷ 1.0
08/05/2023	09:50	00:10:00	50.6	0.4	4.62	11.78	15.7	69	1036.8	0.0 ÷ 1.0
03/05/2023	14:00	00:10:00	39.3	0.9	5.90	28.91	13.9	85	1041.1	0.0 ÷ 1.0
03/05/2023	14:10	00:10:00	40.2	0.9	6.05	14.88	14.7	79	1040.9	0.0 ÷ 1.0
03/05/2023	14:20	00:10:00	44.3	0.9	4.54	37.92	14.9	79	1040.8	0.0 ÷ 1.0
03/05/2023	16:00	00:10:00	41.5	0.9	5.90	13.45	15.4	69	1040.3	0.0 ÷ 1.0
03/05/2023	17:00	00:10:00	41.8	0.9	5.46	26.31	17.3	64	1040.1	0.0 ÷ 1.0
03/05/2023	17:30	00:10:00	49.6	0.9	4.36	16.14	17.1	62	1040.2	0.0 ÷ 1.0
03/05/2023	17:40	00:10:00	48	0.9	4.09	13.62	17.2	62	1040.1	0.0 ÷ 1.0
03/05/2023	18:10	00:10:00	41.9	0.9	5.52	16.84	16.8	60	1040.1	0.0 ÷ 1.0
03/05/2023	18:20	00:10:00	41.9	0.9	6.45	18.95	16.6	62	1040	0.0 ÷ 1.0
03/05/2023	18:50	00:10:00	43	0.9	8.09	23.41	16.6	58	1039.9	0.0 ÷ 1.0
03/05/2023	19:00	00:10:00	43.2	0.9	8.18	38.28	16.3	58	1039.9	0.0 ÷ 1.0
03/05/2023	19:20	00:10:00	41.6	0.9	8.89	39.02	15.8	60	1040.2	0.0 ÷ 1.0
03/05/2023	19:30	00:09:52	46.1	0.9	9.03	42.98	15.7	61	1040.1	0.0 ÷ 1.0
03/05/2023	19:40	00:10:00	43	0.9	9.02	50.00	15.4	61	1040.2	0.0 ÷ 1.0
03/05/2023	20:10	00:09:21	43.4	0.9	8.96	51.01	13.6	66	1040.6	0.0 ÷ 1.0
03/05/2023	20:20	00:09:59	42.8	0.9	7.95	52.14	13.1	69	1040.6	0.0 ÷ 1.0
03/05/2023	20:30	00:10:00	46.3	0.9	4.71	48.99	12.4	70	1040.5	0.0 ÷ 1.0
04/05/2023	10:20	00:10:00	40.4	0.9	4.90	15.51	14.4	66	1041.7	0.0 ÷ 1.0
04/05/2023	10:30	00:10:00	39.4	0.9	5.40	358.05	14.8	65	1041.7	0.0 ÷ 1.0
04/05/2023	10:50	00:10:00	40.7	0.9	4.45	356.40	15.7	61	1041.7	0.0 ÷ 1.0
04/05/2023	11:00	00:07:19	39.8	0.9	4.64	345.52	16.1	64	1041.7	0.0 ÷ 1.0
04/05/2023	11:10	00:10:00	40.8	0.9	4.46	335.20	16.7	64	1041.9	0.0 ÷ 1.0
04/05/2023	11:40	00:10:00	40.3	0.9	3.35	9.92	17.7	57	1041.7	0.0 ÷ 1.0
04/05/2023	11:50	00:10:00	41.2	0.9	4.43	325.42	18.2	61	1041.5	0.0 ÷ 1.0
04/05/2023	12:00	00:09:09	39.7	0.9	4.22	352.47	18.3	56	1041.3	0.0 ÷ 1.0
04/05/2023	12:10	00:06:48	42.2	0.9	4.93	348.92	18.4	53	1041	0.0 ÷ 1.0
04/05/2023	12:30	00:10:00	41.3	0.9	4.23	332.21	19.1	52	1041.1	0.0 ÷ 1.0
04/05/2023	12:40	00:09:31	43.6	0.9	4.73	0.47	18.9	47	1041.2	0.0 ÷ 1.0
04/05/2023	12:50	00:10:00	42.4	0.9	4.41	337.43	18.9	52	1041.1	0.0 ÷ 1.0
04/05/2023	13:10	00:10:00	44.8	0.9	4.76	0.24	19.5	52	1040.6	0.0 ÷ 1.0
04/05/2023	13:20	00:08:24	42.5	0.9	3.33	16.80	20	50	1040.7	0.0 ÷ 1.0
04/05/2023	13:40	00:10:00	39.1	0.9	3.96	7.03	20.2	48	1040.5	0.0 ÷ 1.0
04/05/2023	16:00	00:10:00	41	0.9	3.23	148.24	21.6	47	1039.2	0.0 ÷ 1.0
04/05/2023	16:10	00:10:00	43.6	0.9	3.27	154.94	22	44	1038.9	0.0 ÷ 1.0
04/05/2023	16:50	00:10:00	38.7	0.9	3.61	124.73	21.3	50	1038.6	0.0 ÷ 1.0
04/05/2023	17:10	00:10:00	45.8	0.9	3.61	120.25	20.2	53	1038.5	0.0 ÷ 1.0
04/05/2023	17:20	00:10:00	46.7	0.9	3.42	123.74	20.3	50	1038.4	0.0 ÷ 1.0
04/05/2023	17:50	00:10:00	46.2	0.9	3.05	124.60	19.3	54	1038.2	0.0 ÷ 1.0
04/05/2023	18:00	00:10:00	47.2	0.9	3.16	125.78	18.7	56	1038.2	0.0 ÷ 1.0



**TABELLA 3**  
**Riordino Livello di rumore residuo - Periodo Diurno**

Data [gg/mm/aaaa]	Ore [hh:mm]	Durata effettiva intervallo [hh:mm:ss]	L <sub>R</sub> [dB(A)]	v <sub>r</sub> [m/s]	V [m/s]	θ [°]	Temp. [°C]	Umid. [%]	Press. [Bar]	Classe di v <sub>r</sub> [m/s]
05/05/2023	11:20	00:10:00	43.1	0.9	4.09	129.62	19.6	49	1039.3	0.0 ÷ 1.0
05/05/2023	12:20	00:04:45	39.4	0.9	6.26	133.07	20.6	50	1038.7	0.0 ÷ 1.0
05/05/2023	12:40	00:10:00	41.6	0.9	5.88	140.42	20.3	45	1038.6	0.0 ÷ 1.0
05/05/2023	12:50	00:10:00	43.1	0.9	5.99	139.37	20.8	55	1038.2	0.0 ÷ 1.0
05/05/2023	13:00	00:10:00	41.2	0.9	6.58	132.68	21.6	47	1038.3	0.0 ÷ 1.0
05/05/2023	14:40	00:10:00	37.6	0.9	6.49	132.97	22.1	48	1037.5	0.0 ÷ 1.0
05/05/2023	14:50	00:10:00	43.3	0.9	6.85	137.24	22.2	49	1037.4	0.0 ÷ 1.0
05/05/2023	19:10	00:10:00	48.8	0.9	7.26	124.63	18.6	56	1036.2	0.0 ÷ 1.0
05/05/2023	19:20	00:10:00	46.7	0.9	7.24	132.32	18.2	56	1036.2	0.0 ÷ 1.0
05/05/2023	19:30	00:10:00	48.8	0.9	6.59	138.33	17.9	58	1036.2	0.0 ÷ 1.0
05/05/2023	19:50	00:10:00	48.6	0.9	5.77	153.68	17.4	58	1036.1	0.0 ÷ 1.0
05/05/2023	20:00	00:10:00	46.1	0.9	5.84	149.43	16.9	59	1036.3	0.0 ÷ 1.0
05/05/2023	20:10	00:10:00	43.3	0.9	5.72	147.23	16.2	61	1036.2	0.0 ÷ 1.0
05/05/2023	20:20	00:10:00	47.1	0.9	5.52	143.01	15.7	63	1036.4	0.0 ÷ 1.0
05/05/2023	20:30	00:10:00	49.7	0.9	5.43	142.88	15.4	64	1036.6	0.0 ÷ 1.0
06/05/2023	09:30	00:10:00	46.9	0.9	4.40	120.68	17.7	46	1035.5	0.0 ÷ 1.0
06/05/2023	10:00	00:04:39	41.3	0.9	5.00	131.78	19.2	45	1035.7	0.0 ÷ 1.0
06/05/2023	10:30	00:04:13	40.7	0.9	4.78	132.07	19.8	40	1035.7	0.0 ÷ 1.0
06/05/2023	10:50	00:10:00	42.3	0.9	4.27	122.57	20.3	42	1035.8	0.0 ÷ 1.0
06/05/2023	11:00	00:10:00	44	0.9	4.72	120.76	20.4	47	1035.9	0.0 ÷ 1.0
06/05/2023	11:10	00:10:00	46.5	0.9	4.66	129.88	20.4	44	1036	0.0 ÷ 1.0
06/05/2023	11:20	00:10:00	44.2	0.9	4.88	135.45	20.6	44	1035.8	0.0 ÷ 1.0
06/05/2023	11:30	00:09:25	41.7	0.9	4.72	134.16	20.8	45	1035.7	0.0 ÷ 1.0
06/05/2023	11:40	00:10:00	40	0.9	5.17	136.83	20.8	43	1035.7	0.0 ÷ 1.0
06/05/2023	12:00	00:09:24	39.7	0.9	5.87	133.07	20.8	43	1035.4	0.0 ÷ 1.0
06/05/2023	12:40	00:10:00	39.5	0.9	6.54	134.16	21.6	46	1035.1	0.0 ÷ 1.0
06/05/2023	13:20	00:10:00	41.2	0.9	7.00	138.17	22.2	47	1034.8	0.0 ÷ 1.0
06/05/2023	13:50	00:10:00	39.1	0.9	7.27	131.50	22.6	49	1034.9	0.0 ÷ 1.0
06/05/2023	19:50	00:00:57	49.3	0.9	6.57	128.94	17.8	54	1033.6	0.0 ÷ 1.0
06/05/2023	20:00	00:02:55	49.8	0.9	7.02	128.73	17.2	54	1033.9	0.0 ÷ 1.0
06/05/2023	21:50	00:10:00	47.2	0.9	7.43	136.29	15.1	56	1034.7	0.0 ÷ 1.0
07/05/2023	10:50	00:10:00	42.1	0.9	7.37	138.06	19.2	38	1035.5	0.0 ÷ 1.0
07/05/2023	11:00	00:10:00	42.5	0.9	7.16	138.93	19.7	35	1035.4	0.0 ÷ 1.0
07/05/2023	11:20	00:10:00	42.9	0.9	7.56	131.36	20.2	35	1035.4	0.0 ÷ 1.0
07/05/2023	11:40	00:10:00	45.2	0.9	6.97	138.49	20.4	37	1035.4	0.0 ÷ 1.0
07/05/2023	13:40	00:10:00	42.4	0.9	7.02	143.60	20.4	36	1035.1	0.0 ÷ 1.0
07/05/2023	19:00	00:10:00	52.6	0.9	7.66	127.39	18.7	47	1034.8	0.0 ÷ 1.0
07/05/2023	19:10	00:10:00	53.5	0.9	6.87	129.70	18.4	47	1034.7	0.0 ÷ 1.0
07/05/2023	19:20	00:09:50	53.6	0.9	7.20	131.60	18.2	49	1034.8	0.0 ÷ 1.0
07/05/2023	19:30	00:09:49	52.7	0.9	7.00	128.66	17.9	50	1034.6	0.0 ÷ 1.0
07/05/2023	19:40	00:10:00	52.2	0.9	7.54	128.18	17.7	50	1034.6	0.0 ÷ 1.0
07/05/2023	19:50	00:10:00	51	0.9	7.11	126.79	17.3	51	1034.8	0.0 ÷ 1.0
07/05/2023	20:00	00:10:00	53.6	0.9	6.75	125.35	16.9	52	1034.9	0.0 ÷ 1.0
07/05/2023	20:10	00:10:00	50.9	0.9	6.64	125.31	16.7	51	1035	0.0 ÷ 1.0
07/05/2023	20:20	00:10:00	52.4	0.9	7.59	129.67	16.4	51	1035	0.0 ÷ 1.0
07/05/2023	20:30	00:10:00	54.3	0.9	7.97	127.96	16	52	1035	0.0 ÷ 1.0
07/05/2023	20:40	00:10:00	55.3	0.9	7.99	129.62	15.6	54	1035	0.0 ÷ 1.0
07/05/2023	20:50	00:10:00	55.6	0.9	8.14	131.82	15.4	54	1035.1	0.0 ÷ 1.0
07/05/2023	21:00	00:10:00	55.6	0.9	8.91	134.15	15.2	57	1035.4	0.0 ÷ 1.0
07/05/2023	21:20	00:10:00	54.4	0.9	8.31	136.15	14.9	57	1035.5	0.0 ÷ 1.0
07/05/2023	21:30	00:10:00	54.3	0.9	7.49	138.96	14.8	59	1035.5	0.0 ÷ 1.0
07/05/2023	21:40	00:10:00	54.3	0.9	7.84	141.35	14.4	61	1035.2	0.0 ÷ 1.0
07/05/2023	21:50	00:10:00	53.9	0.9	8.61	138.53	14.4	60	1035.7	0.0 ÷ 1.0

**TABELLA 3**  
**Riordino Livello di rumore residuo - Periodo Diurno**

Data [gg/mm/aaaa]	Ore [hh:mm]	Durata effettiva intervallo [hh:mm:ss]	L <sub>R</sub> [dB(A)]	v <sub>r</sub> [m/s]	V [m/s]	θ [°]	Temp. [°C]	Umid. [%]	Press. [Bar]	Classe di v <sub>r</sub> [m/s]
08/05/2023	09:20	00:10:00	53.5	0.9	4.97	12.16	14.9	67	1036.5	0.0 ÷ 1.0
08/05/2023	09:30	00:09:43	50.1	0.9	5.05	11.19	15.2	71	1036.5	0.0 ÷ 1.0
08/05/2023	10:00	00:10:00	52.9	0.9	4.71	17.51	16	69	1036.7	0.0 ÷ 1.0
08/05/2023	10:10	00:10:00	51.3	0.9	5.22	14.06	16.2	70	1036.7	0.0 ÷ 1.0
03/05/2023	13:50	00:10:00	42.8	1.3	6.84	17.56	14.2	89	1040.9	1.0 ÷ 2.0
03/05/2023	14:30	00:10:00	40.1	1.3	5.42	13.03	14.3	76	1040.7	1.0 ÷ 2.0
03/05/2023	14:50	00:10:00	41.3	1.3	5.55	27.09	14.6	78	1040.8	1.0 ÷ 2.0
03/05/2023	15:00	00:10:00	43.7	1.3	6.06	7.24	14.6	75	1040.7	1.0 ÷ 2.0
03/05/2023	15:10	00:10:00	45.3	1.3	6.65	23.53	14.4	76	1040.7	1.0 ÷ 2.0
03/05/2023	15:30	00:09:56	42.1	1.3	5.95	17.33	14.8	73	1040.7	1.0 ÷ 2.0
03/05/2023	15:40	00:09:47	42.6	1.3	6.23	37.35	14.8	73	1040.6	1.0 ÷ 2.0
03/05/2023	15:50	00:09:44	42	1.3	4.77	18.57	15.1	69	1040.5	1.0 ÷ 2.0
03/05/2023	16:10	00:08:27	43	1.3	5.31	18.12	16.1	71	1040.4	1.0 ÷ 2.0
03/05/2023	16:30	00:10:00	44.4	1.3	4.75	26.92	16.2	69	1040.2	1.0 ÷ 2.0
03/05/2023	16:40	00:10:00	41.6	1.3	4.20	23.02	16.8	65	1040.2	1.0 ÷ 2.0
03/05/2023	17:10	00:09:37	41	1.3	4.51	28.70	17.3	63	1040.3	1.0 ÷ 2.0
03/05/2023	17:20	00:10:00	41.8	1.3	4.66	18.26	17.1	62	1040.1	1.0 ÷ 2.0
03/05/2023	17:50	00:10:00	46.3	1.3	5.16	6.94	16.9	57	1040.1	1.0 ÷ 2.0
03/05/2023	18:00	00:10:00	43.2	1.3	4.68	7.16	16.7	60	1040.1	1.0 ÷ 2.0
03/05/2023	18:40	00:10:00	44.4	1.3	7.47	24.80	16.7	57	1039.9	1.0 ÷ 2.0
03/05/2023	19:10	00:10:00	43.5	1.3	8.26	38.51	16.1	59	1040	1.0 ÷ 2.0
04/05/2023	11:20	00:10:00	40.3	1.3	4.33	32.42	16.6	62	1041.8	1.0 ÷ 2.0
04/05/2023	11:30	00:10:00	40.6	1.3	4.19	50.41	17	66	1041.6	1.0 ÷ 2.0
04/05/2023	12:20	00:09:17	44.7	1.3	4.24	338.71	18.6	55	1041.1	1.0 ÷ 2.0
04/05/2023	13:00	00:10:00	39.7	1.3	3.82	350.21	19.1	49	1041	1.0 ÷ 2.0
04/05/2023	13:30	00:09:44	39.3	1.3	3.61	50.65	19.8	51	1040.6	1.0 ÷ 2.0
04/05/2023	13:50	00:10:00	46	1.3	3.23	1.75	20.1	47	1040.4	1.0 ÷ 2.0
04/05/2023	14:00	00:10:00	38.2	1.3	4.06	359.07	20.4	46	1040.4	1.0 ÷ 2.0
05/05/2023	13:20	00:10:00	38.5	1.3	6.54	143.66	21.4	51	1038.1	1.0 ÷ 2.0
05/05/2023	13:30	00:09:12	40.4	1.3	5.93	137.87	21.5	52	1037.9	1.0 ÷ 2.0
05/05/2023	13:40	00:10:00	40.9	1.3	6.33	131.01	21.4	51	1037.8	1.0 ÷ 2.0
05/05/2023	14:00	00:10:00	41.1	1.3	6.70	137.35	21.9	48	1037.7	1.0 ÷ 2.0
05/05/2023	14:10	00:10:00	38.2	1.3	6.28	140.09	21.9	48	1037.6	1.0 ÷ 2.0
05/05/2023	14:20	00:10:00	44	1.3	6.31	139.89	21.9	49	1037.7	1.0 ÷ 2.0
05/05/2023	15:00	00:10:00	43.4	1.3	6.51	138.54	22	50	1037.2	1.0 ÷ 2.0
05/05/2023	15:10	00:10:00	40.9	1.3	6.16	148.05	22.2	49	1037.4	1.0 ÷ 2.0
05/05/2023	15:30	00:10:00	42	1.3	5.94	133.70	22.1	49	1037.1	1.0 ÷ 2.0
05/05/2023	15:40	00:10:00	39.9	1.3	6.13	135.26	22.2	47	1036.9	1.0 ÷ 2.0
05/05/2023	15:50	00:10:00	40.9	1.3	6.18	134.13	22.2	48	1036.9	1.0 ÷ 2.0
05/05/2023	16:10	00:10:00	44.1	1.3	5.92	140.62	21.8	48	1036.5	1.0 ÷ 2.0
05/05/2023	16:20	00:10:00	42.5	1.3	6.82	136.84	21.4	48	1036.5	1.0 ÷ 2.0
05/05/2023	16:30	00:10:00	41.3	1.3	6.64	136.06	21.4	49	1036.5	1.0 ÷ 2.0
05/05/2023	17:20	00:00:18	42.8	1.3	6.07	130.88	21.2	47	1036.5	1.0 ÷ 2.0
05/05/2023	17:30	00:10:00	45.2	1.3	6.44	131.42	21.1	48	1036.5	1.0 ÷ 2.0
05/05/2023	17:40	00:01:35	46.9	1.3	6.36	134.91	21.1	48	1036.3	1.0 ÷ 2.0
05/05/2023	17:50	00:01:31	47.2	1.3	6.42	131.48	21.1	50	1036.4	1.0 ÷ 2.0
05/05/2023	19:00	00:00:54	48.9	1.3	7.08	127.92	18.8	54	1036.1	1.0 ÷ 2.0
05/05/2023	19:40	00:10:00	49.7	1.3	5.93	148.53	17.7	57	1036	1.0 ÷ 2.0
06/05/2023	11:50	00:10:00	44.3	1.3	5.51	132.00	20.7	43	1035.6	1.0 ÷ 2.0
06/05/2023	12:10	00:10:00	41.3	1.3	6.08	131.79	20.9	42	1035.3	1.0 ÷ 2.0
06/05/2023	12:20	00:10:00	39.2	1.3	5.84	133.00	21.1	48	1035.4	1.0 ÷ 2.0
06/05/2023	12:30	00:10:00	41.5	1.3	5.89	134.03	21.4	44	1035.2	1.0 ÷ 2.0
06/05/2023	12:50	00:10:00	40	1.3	6.45	136.39	21.7	42	1035	1.0 ÷ 2.0

**TABELLA 3**  
**Riordino Livello di rumore residuo - Periodo Diurno**

Data [gg/mm/aaaa]	Ore [hh:mm]	Durata effettiva intervallo [hh:mm:ss]	L <sub>R</sub> [dB(A)]	v <sub>r</sub> [m/s]	V [m/s]	θ [°]	Temp. [°C]	Umid. [%]	Press. [Bar]	Classe di v <sub>r</sub> [m/s]
06/05/2023	13:00	00:10:00	38.1	1.3	6.53	133.09	21.7	46	1034.9	1.0 + 2.0
06/05/2023	13:10	00:10:00	39.5	1.3	7.08	134.62	21.8	48	1034.9	1.0 + 2.0
06/05/2023	13:30	00:10:00	42.1	1.3	6.87	139.02	22.2	44	1034.7	1.0 + 2.0
06/05/2023	13:40	00:10:00	42.2	1.3	7.22	132.28	22.4	47	1034.7	1.0 + 2.0
06/05/2023	14:10	00:09:23	45.2	1.3	6.95	138.93	22.6	46	1034.7	1.0 + 2.0
06/05/2023	14:40	00:10:00	44.4	1.3	6.96	134.79	22.2	47	1034.6	1.0 + 2.0
06/05/2023	14:50	00:10:00	45.7	1.3	7.08	136.71	22.1	48	1034.6	1.0 + 2.0
06/05/2023	15:00	00:10:00	47	1.3	7.16	136.53	22.3	47	1034.4	1.0 + 2.0
06/05/2023	15:20	00:10:00	45.6	1.3	7.41	134.19	22	46	1034.4	1.0 + 2.0
06/05/2023	15:30	00:10:00	44.5	1.3	7.36	136.50	21.9	47	1034.4	1.0 + 2.0
06/05/2023	16:10	00:10:00	43.7	1.3	7.20	133.31	21.6	46	1034	1.0 + 2.0
06/05/2023	16:20	00:10:00	45.5	1.3	7.11	136.63	21.8	46	1033.9	1.0 + 2.0
06/05/2023	16:30	00:10:00	43.3	1.3	7.05	134.85	21.8	46	1033.9	1.0 + 2.0
06/05/2023	16:50	00:10:00	46.2	1.3	6.81	130.67	21.5	45	1034.1	1.0 + 2.0
06/05/2023	17:10	00:10:00	46.7	1.3	7.39	131.62	21.3	44	1033.8	1.0 + 2.0
06/05/2023	17:30	00:01:34	42.6	1.3	7.52	128.93	21.3	44	1034.1	1.0 + 2.0
06/05/2023	18:00	00:06:01	44.8	1.3	8.13	128.96	20.6	47	1033.9	1.0 + 2.0
07/05/2023	11:10	00:09:00	44.8	1.3	7.40	137.92	19.9	36	1035.3	1.0 + 2.0
07/05/2023	11:30	00:10:00	42.1	1.3	6.73	131.71	20.3	33	1035.5	1.0 + 2.0
07/05/2023	12:00	00:07:14	45.8	1.3	6.56	136.79	19.7	40	1035.4	1.0 + 2.0
07/05/2023	12:10	00:10:00	45.4	1.3	7.07	137.90	19.4	43	1035.5	1.0 + 2.0
07/05/2023	12:20	00:09:30	44.1	1.3	6.97	133.42	19.7	44	1035.5	1.0 + 2.0
07/05/2023	12:40	00:10:00	42.9	1.3	6.97	133.27	20.1	38	1035.2	1.0 + 2.0
07/05/2023	13:20	00:07:25	42.6	1.3	7.02	141.40	19.9	41	1035.1	1.0 + 2.0
07/05/2023	13:30	00:10:00	39.9	1.3	7.00	139.85	20.5	39	1035.1	1.0 + 2.0
07/05/2023	13:50	00:10:00	38.5	1.3	7.41	141.22	19.7	38	1035.1	1.0 + 2.0
07/05/2023	14:00	00:10:00	41.3	1.3	8.09	141.59	19.7	37	1035.2	1.0 + 2.0
07/05/2023	14:10	00:10:00	43.1	1.3	8.33	142.75	19.6	44	1035.3	1.0 + 2.0
07/05/2023	14:20	00:10:00	43.5	1.3	8.72	138.96	20.4	39	1035.3	1.0 + 2.0
07/05/2023	14:30	00:09:18	46.1	1.3	8.53	142.43	21.3	41	1035.2	1.0 + 2.0
07/05/2023	14:40	00:08:49	45.4	1.3	9.11	142.77	20.7	40	1035.4	1.0 + 2.0
07/05/2023	14:50	00:10:00	45	1.3	8.57	145.62	20.5	41	1035.3	1.0 + 2.0
07/05/2023	15:20	00:10:00	44.7	1.3	8.82	140.70	21.1	39	1035.2	1.0 + 2.0
07/05/2023	15:30	00:06:49	45	1.3	8.84	145.42	22.1	39	1035.2	1.0 + 2.0
07/05/2023	17:20	00:09:30	51.8	1.3	6.78	143.80	21.2	40	1034.4	1.0 + 2.0
07/05/2023	17:30	00:09:24	51.3	1.3	7.30	142.32	21.3	40	1034.5	1.0 + 2.0
07/05/2023	17:50	00:10:00	47.4	1.3	6.98	136.44	21.4	40	1034.7	1.0 + 2.0
07/05/2023	18:00	00:10:00	50.4	1.3	6.93	134.64	21.6	40	1034.5	1.0 + 2.0
07/05/2023	18:10	00:10:00	52.2	1.3	6.32	133.60	21.4	42	1034.4	1.0 + 2.0
07/05/2023	18:20	00:10:00	54.2	1.3	6.69	126.28	20.7	42	1034.5	1.0 + 2.0
07/05/2023	18:30	00:10:00	55	1.3	7.41	125.27	20.7	43	1034.5	1.0 + 2.0
07/05/2023	18:40	00:10:00	55.3	1.3	7.30	128.24	20	43	1034.6	1.0 + 2.0
07/05/2023	18:50	00:10:00	53.9	1.3	7.58	130.85	19.1	46	1034.6	1.0 + 2.0
07/05/2023	21:10	00:10:00	53.6	1.3	8.30	136.00	15.1	57	1035.5	1.0 + 2.0
08/05/2023	10:20	00:10:00	46.4	1.3	5.29	8.17	16.3	71	1036.4	1.0 + 2.0
03/05/2023	14:40	00:10:00	43.5	1.8	5.98	18.19	14.3	78	1040.7	1.0 + 2.0
03/05/2023	15:20	00:10:00	44.8	1.8	5.81	25.09	14.4	75	1040.7	1.0 + 2.0
03/05/2023	16:20	00:10:00	42.7	1.8	5.04	20.97	16.3	69	1040.2	1.0 + 2.0
03/05/2023	16:50	00:10:00	37.5	1.8	4.20	23.82	17	67	1039.9	1.0 + 2.0
03/05/2023	18:30	00:10:00	42.4	1.8	6.66	23.69	16.5	58	1040	1.0 + 2.0
05/05/2023	13:50	00:10:00	45.6	1.8	6.38	134.98	21.7	50	1037.7	1.0 + 2.0
05/05/2023	14:30	00:10:00	36.7	1.8	6.58	140.19	21.9	47	1037.5	1.0 + 2.0
05/05/2023	15:20	00:10:00	40.5	1.8	5.82	138.23	21.9	48	1037.3	1.0 + 2.0

**TABELLA 3**  
**Riordino Livello di rumore residuo - Periodo Diurno**

Data [gg/mm/aaaa]	Ore [hh:mm]	Durata effettiva intervallo [hh:mm:ss]	L <sub>R</sub> [dB(A)]	v <sub>r</sub> [m/s]	V [m/s]	θ [°]	Temp. [°C]	Umid. [%]	Press. [Bar]	Classe di v <sub>r</sub> [m/s]
05/05/2023	16:00	00:09:47	41.5	1.8	5.62	145.64	21.8	49	1036.7	1.0 ÷ 2.0
05/05/2023	16:40	00:05:02	40.7	1.8	6.37	136.43	21.4	49	1036.6	1.0 ÷ 2.0
06/05/2023	14:00	00:10:00	46.8	1.8	7.05	135.54	22.3	46	1034.8	1.0 ÷ 2.0
06/05/2023	14:20	00:10:00	43.1	1.8	7.11	133.60	22.3	47	1034.8	1.0 ÷ 2.0
06/05/2023	14:30	00:10:00	42.7	1.8	7.23	126.68	22.2	46	1034.7	1.0 ÷ 2.0
06/05/2023	15:10	00:10:00	43.8	1.8	7.36	132.59	22.2	47	1034.4	1.0 ÷ 2.0
06/05/2023	15:40	00:10:00	45.5	1.8	7.09	134.39	22.2	47	1034	1.0 ÷ 2.0
06/05/2023	15:50	00:10:00	44.1	1.8	7.39	133.86	21.7	48	1034	1.0 ÷ 2.0
06/05/2023	16:00	00:10:00	41.4	1.8	7.69	133.33	21.4	45	1034	1.0 ÷ 2.0
06/05/2023	16:40	00:09:46	42.1	1.8	7.16	132.46	21.6	45	1033.9	1.0 ÷ 2.0
06/05/2023	17:00	00:10:00	45	1.8	7.19	131.63	21.3	46	1033.8	1.0 ÷ 2.0
06/05/2023	17:20	00:02:59	45.2	1.8	7.48	127.36	21.2	44	1033.9	1.0 ÷ 2.0
06/05/2023	17:50	00:00:43	42.9	1.8	8.10	128.73	20.6	46	1034	1.0 ÷ 2.0
07/05/2023	11:50	00:10:00	47.6	1.8	6.87	132.33	20.2	37	1035.5	1.0 ÷ 2.0
07/05/2023	12:30	00:10:00	43.8	1.8	7.09	132.16	19.9	43	1035.3	1.0 ÷ 2.0
07/05/2023	12:50	00:06:16	43.4	1.8	6.52	132.68	20.4	40	1035.1	1.0 ÷ 2.0
07/05/2023	15:00	00:09:04	44.1	1.8	8.33	141.91	21.2	39	1035.2	1.0 ÷ 2.0
07/05/2023	15:10	00:10:00	44.4	1.8	8.46	140.24	20.3	38	1035.1	1.0 ÷ 2.0
07/05/2023	16:50	00:00:33	45	1.8	7.42	142.50	21.2	42	1034.7	1.0 ÷ 2.0
07/05/2023	17:10	00:10:00	49.9	1.8	7.46	143.55	21.1	40	1034.4	1.0 ÷ 2.0
07/05/2023	17:40	00:08:28	48.3	1.8	7.20	137.25	21.2	39	1034.6	1.0 ÷ 2.0
07/05/2023	16:30	00:04:59	45.7	2.2	7.86	143.51	20.9	41	1034.7	2.0 ÷ 3.0
07/05/2023	17:00	00:07:51	47.6	2.2	7.61	142.73	21.2	41	1034.6	2.0 ÷ 3.0

TABELLA 4

Calcolo del Livello di rumore residuo medio per classi di velocità - Periodo Diurno

Data [gg/mm/aaaa]	L <sub>R</sub> [dB(A)]	v <sub>r</sub> [m/s]	V [m/s]	Classe di v <sub>r</sub> [m/s]
dal 03/05/2023 al 08/05/2023	47.0	0.5	5.2	0.0 ÷ 1.0
dal 03/05/2023 al 08/05/2023	46.0	1.4	6.6	1.0 ÷ 2.0
07/05/2023	47.0	2.2	6.6	2.0 ÷ 3.0
-	-	-	-	3.0 ÷ 4.0
-	-	-	-	4.0 ÷ 5.0



**TABELLA 2**  
**Livello di rumore residuo - Periodo Notturno**

Data [gg/mm/aaaa]	Ore [hh:mm]	Durata effettiva intervallo [hh:mm:ss]	L <sub>R</sub> [dB(A)]	v <sub>r</sub> [m/s]	V [m/s]	θ [°]	Temp. [°C]	Umid. [%]	Press. [Bar]
03/05/2023	22:00	00:10:00	37.4	0	4.47	9.58	10.3	80	1041.7
03/05/2023	22:10	00:10:00	36	0	4.51	6.86	10.2	81	1041.9
03/05/2023	22:20	00:10:00	37.3	0	4.82	3.14	10.1	81	1041.8
03/05/2023	22:30	00:10:00	36.3	0	4.65	1.00	10.1	82	1041.7
03/05/2023	22:40	00:10:00	34.2	0.4	4.23	358.26	9.5	83	1041.8
03/05/2023	22:50	00:10:00	33.5	0	3.67	352.32	9.4	84	1041.8
03/05/2023	23:00	00:09:54	36.6	0	3.66	351.51	9.4	83	1041.9
03/05/2023	23:10	00:10:00	38	0	4.68	2.77	9.4	83	1042
03/05/2023	23:20	00:10:00	32.2	0	5.41	6.00	9.4	84	1042
03/05/2023	23:30	00:10:00	32.9	0	5.48	9.22	9.5	83	1042.1
03/05/2023	23:40	00:10:00	32.5	0	5.55	15.53	9.4	84	1042
03/05/2023	23:50	00:10:00	32.7	0.4	5.52	11.59	9.1	85	1042
04/05/2023	00:00	00:09:17	34.1	0.4	4.96	1.09	8.9	86	1042.1
04/05/2023	00:10	00:10:00	33.6	0	5.00	359.68	8.8	86	1042.1
04/05/2023	00:20	00:10:00	33.3	0	4.99	2.89	8.8	86	1042.1
04/05/2023	00:30	00:10:00	33.3	0	5.28	359.31	8.8	86	1042.1
04/05/2023	00:40	00:10:00	34	0	5.22	358.93	8.4	87	1042.2
04/05/2023	00:50	00:10:00	33.8	0	5.35	4.53	8.2	88	1042.1
04/05/2023	01:00	00:10:00	33	0	5.12	0.39	8.3	88	1042.2
04/05/2023	01:10	00:10:00	37.5	0	4.92	356.58	8.4	87	1042.2
04/05/2023	01:20	00:10:00	32.9	0.4	4.93	355.83	8.2	88	1042.1
04/05/2023	01:30	00:10:00	33.7	0.4	4.25	351.92	8.4	88	1042
04/05/2023	01:40	00:10:00	34.7	0	4.30	353.07	8.4	87	1042
04/05/2023	01:50	00:10:00	32.3	0	4.31	351.14	8.3	87	1042
04/05/2023	02:00	00:10:00	32.9	0	4.26	346.20	8.2	88	1042
04/05/2023	02:10	00:10:00	32.3	0	4.07	349.47	8	88	1042.1
04/05/2023	02:20	00:10:00	33.2	0	4.09	352.06	7.7	89	1042.1
04/05/2023	02:30	00:10:00	32.2	0	3.80	3.25	7.6	89	1042
04/05/2023	02:40	00:10:00	31.6	0	3.50	354.08	7.4	90	1042
04/05/2023	02:50	00:10:00	31.4	0	3.54	359.44	7.5	90	1042
04/05/2023	03:00	00:10:00	32	0	3.60	0.18	7.6	89	1042
04/05/2023	03:10	00:10:00	32.4	0	3.83	12.28	7.6	89	1042.1
04/05/2023	03:20	00:10:00	32.2	0	4.02	8.09	7.4	90	1042.1
04/05/2023	03:30	00:10:00	32.3	0	4.19	3.00	7.4	90	1042.1
04/05/2023	03:40	00:10:00	32	0.4	4.42	3.53	7.3	90	1042.2
04/05/2023	03:50	00:10:00	32.2	0	4.51	12.16	7.5	90	1042.1
04/05/2023	04:00	00:10:00	32	0	5.02	19.40	7.7	89	1042.2
04/05/2023	04:10	00:10:00	32.9	0	4.85	19.07	7.5	89	1042.1
04/05/2023	04:20	00:10:00	32.8	0.4	5.07	25.68	7.5	89	1042.2
04/05/2023	04:30	00:10:00	32.4	0.4	5.81	31.77	7.4	90	1042.2
04/05/2023	04:40	00:10:00	32.2	0	6.32	42.58	7.2	90	1042.1
04/05/2023	04:50	00:09:07	32.2	0	5.99	37.53	7.2	90	1042.1
04/05/2023	05:00	00:10:00	32.5	0	6.05	42.61	7.1	90	1042.1
04/05/2023	05:10	00:10:00	32.7	0	4.92	37.43	6.9	91	1042.1
04/05/2023	05:20	00:10:00	41.8	0	4.54	32.53	6.9	91	1042.1
04/05/2023	05:30	00:10:00	48.1	0	4.60	38.62	6.9	91	1042.1
04/05/2023	05:40	00:10:00	49.4	0	4.26	51.35	7	91	1042.1
04/05/2023	05:50	00:10:00	44.5	0.4	3.10	55.51	7	90	1041.9
05/05/2023	22:00	00:10:00	46	0	3.66	149.89	13.4	70	1037
05/05/2023	22:10	00:10:00	40.2	0	4.03	145.03	13.3	71	1037
05/05/2023	22:20	00:10:00	38.7	0	3.69	159.31	13.3	71	1037.1
05/05/2023	22:30	00:10:00	41.1	0	3.50	154.75	13.2	70	1037
05/05/2023	22:40	00:10:00	39.2	0.4	3.39	159.54	13.3	70	1037

**TABELLA 2**  
**Livello di rumore residuo - Periodo Notturno**

Data [gg/mm/aaaa]	Ore [hh:mm]	Durata effettiva intervallo [hh:mm:ss]	L <sub>R</sub> [dB(A)]	v <sub>r</sub> [m/s]	V [m/s]	θ [°]	Temp. [°C]	Umid. [%]	Press. [Bar]
05/05/2023	22:50	00:10:00	39.6	0	3.59	160.14	13.1	70	1037.1
05/05/2023	23:00	00:10:00	39.5	0.4	3.70	157.82	13.2	70	1037
05/05/2023	23:10	00:10:00	36	0.4	3.36	157.84	13.2	70	1037
05/05/2023	23:20	00:10:00	34.1	0.4	3.25	160.48	13.4	66	1036.9
05/05/2023	23:30	00:10:00	35.8	0.4	3.18	160.09	13.7	66	1036.9
06/05/2023	01:00	00:10:00	36.5	0.4	3.08	191.72	12.1	74	1036.5
06/05/2023	01:10	00:10:00	35.3	0.4	3.03	181.33	11.8	74	1036.5
06/05/2023	01:20	00:10:00	39.5	0.4	3.15	187.29	12.2	72	1036.4
06/05/2023	01:30	00:10:00	34	0.4	3.15	197.11	12.4	72	1036.5
06/05/2023	01:40	00:10:00	34.1	0	3.30	205.08	12.1	73	1036.6
06/05/2023	01:50	00:10:00	32.9	0	3.30	197.38	11.6	74	1036.5
06/05/2023	02:00	00:10:00	31.6	0	3.13	188.68	11.3	75	1036.4
06/05/2023	02:20	00:10:00	32.3	0	3.06	200.61	11.4	75	1036.3
06/05/2023	02:30	00:10:00	33.5	0.4	3.34	205.66	11.7	71	1036.1
06/05/2023	02:40	00:10:00	32.5	0	3.16	195.65	11.5	72	1035.9
06/05/2023	02:50	00:10:00	31.4	0.4	3.08	184.72	11.6	69	1035.9
06/05/2023	03:00	00:10:00	30.5	0	3.45	198.11	11.5	67	1035.8
06/05/2023	03:10	00:10:00	31.6	0	3.09	211.03	11.3	68	1035.9
06/05/2023	03:50	00:10:00	39.5	0	3.11	162.06	10.3	74	1035.8
06/05/2023	04:50	00:10:00	30	0.4	3.31	135.80	10.5	68	1035.5
06/05/2023	05:00	00:10:00	30.2	0.4	3.36	128.36	10.3	73	1035.4
06/05/2023	05:10	00:10:00	33.8	0.4	3.32	120.20	10.1	69	1035.5
06/05/2023	05:20	00:10:00	46	0.4	3.78	117.67	10.2	74	1035.5
06/05/2023	05:30	00:10:00	50.7	0.4	3.98	117.65	10.6	71	1035.4
06/05/2023	05:40	00:10:00	47.1	0	3.77	119.82	10.8	68	1035.4
06/05/2023	05:50	00:10:00	46	0	3.77	123.12	10.6	70	1035.3
06/05/2023	22:00	00:10:00	44.3	0.4	7.77	138.88	14.9	56	1035
06/05/2023	22:10	00:10:00	42.9	0.4	7.71	136.09	14.9	57	1034.9
06/05/2023	22:20	00:10:00	43.8	0.4	7.69	140.40	14.9	57	1034.9
06/05/2023	22:30	00:10:00	41.8	0.4	7.18	141.90	14.8	57	1035
06/05/2023	22:40	00:10:00	40.7	0.4	6.72	136.73	14.8	56	1035
06/05/2023	22:50	00:10:00	39.9	0.4	6.01	135.43	14.8	55	1035
06/05/2023	23:00	00:10:00	40	0.4	4.66	139.73	14.7	55	1034.9
06/05/2023	23:20	00:10:00	41.1	0.4	7.91	138.65	14.5	58	1034.9
06/05/2023	23:30	00:10:00	39.4	0.4	7.94	138.75	14.3	60	1034.9
06/05/2023	23:40	00:10:00	40.7	0.4	7.55	141.36	14.2	59	1034.9
06/05/2023	23:50	00:09:59	43.5	0.4	7.09	144.61	14.3	59	1035.2
07/05/2023	00:00	00:09:17	39	0.4	7.12	140.94	14.2	58	1035.3
07/05/2023	00:10	00:10:00	37.9	0.4	8.23	141.73	14.2	58	1035.3
07/05/2023	00:20	00:10:00	40.4	0	8.69	146.49	13.9	58	1035.3
07/05/2023	00:30	00:10:00	35.3	0.4	8.69	146.50	13.8	60	1035.3
07/05/2023	00:40	00:10:00	34.6	0	8.56	148.05	13.7	63	1035.3
07/05/2023	00:50	00:10:00	39.2	0	8.29	147.33	13.7	64	1035.3
07/05/2023	01:00	00:10:00	37.9	0.4	8.03	144.17	13.5	63	1035.3
07/05/2023	01:10	00:10:00	32.5	0	7.28	148.42	13.4	64	1035.3
07/05/2023	01:20	00:10:00	36	0	7.31	145.34	13.3	65	1035.3
07/05/2023	01:30	00:10:00	38.1	0.4	7.19	144.81	13.3	65	1035.2
07/05/2023	01:40	00:10:00	35.3	0.4	7.53	143.54	13.3	64	1035.1
07/05/2023	01:50	00:10:00	37.5	0.4	6.76	147.17	13.3	65	1035.1
07/05/2023	02:00	00:10:00	41	0.4	6.73	139.74	13.3	64	1035.2
07/05/2023	02:10	00:10:00	35.6	0.4	7.14	139.94	13.3	64	1035.3
07/05/2023	02:20	00:10:00	34.5	0.4	7.18	140.10	13.3	63	1035.3
07/05/2023	02:30	00:10:00	35.1	0	7.04	137.88	13.2	64	1035.2

**TABELLA 2**  
**Livello di rumore residuo - Periodo Notturno**

Data [gg/mm/aaaa]	Ore [hh:mm]	Durata effettiva intervallo [hh:mm:ss]	L <sub>R</sub> [dB(A)]	v <sub>r</sub> [m/s]	V [m/s]	θ [°]	Temp. [°C]	Umid. [%]	Press. [Bar]
07/05/2023	02:40	00:10:00	37.2	0	6.72	136.09	13.1	64	1035.2
07/05/2023	02:50	00:10:00	34.4	0	5.88	136.48	13.1	65	1035.3
07/05/2023	03:00	00:10:00	34.5	0.4	5.21	148.32	13.1	65	1035.2
07/05/2023	03:10	00:10:00	35	0	5.36	155.89	13.3	64	1035.2
07/05/2023	03:20	00:10:00	34.1	0	4.93	162.98	13.1	64	1035.2
07/05/2023	03:30	00:10:00	37.2	0.4	5.00	158.69	13.1	65	1035.1
07/05/2023	03:40	00:10:00	32	0.9	4.82	155.12	13.1	65	1035.3
07/05/2023	03:50	00:10:00	33.1	0.4	4.95	155.19	13	63	1035.2
07/05/2023	04:00	00:10:00	30.3	0	5.17	150.61	12.8	65	1035
07/05/2023	04:10	00:10:00	34	0.4	4.40	142.39	12.9	62	1035
07/05/2023	04:20	00:10:00	32.1	0	4.51	147.20	13	63	1035
07/05/2023	04:30	00:10:00	30.1	0	4.38	149.76	12.9	62	1035
07/05/2023	04:40	00:10:00	29.7	0	5.04	135.36	12.8	63	1035.1
07/05/2023	04:50	00:10:00	32.6	0	4.63	135.17	12.6	61	1035.2
07/05/2023	05:00	00:10:00	34.6	0	4.69	132.81	12.7	60	1035.1
07/05/2023	05:10	00:10:00	33.4	0.4	4.27	144.09	12.7	61	1035.1
07/05/2023	05:20	00:10:00	46	0.4	4.08	144.09	12.2	61	1034.8
07/05/2023	05:30	00:10:00	48.9	0.4	3.40	140.74	11.8	64	1034.8
07/05/2023	22:00	00:10:00	52.9	0.4	8.06	141.41	14.4	60	1035.7
07/05/2023	22:10	00:10:00	50.2	1.3	7.46	142.11	14.4	60	1035.7
07/05/2023	22:20	00:10:00	49.6	0.9	7.45	142.17	14.5	60	1035.7
07/05/2023	22:30	00:10:00	47.7	0.9	7.56	138.59	14.3	60	1035.6
07/05/2023	22:40	00:10:00	49.9	0.9	7.81	134.76	14.1	60	1035.7
07/05/2023	22:50	00:10:00	50.4	0.4	7.76	132.12	14.2	59	1035.7
07/05/2023	23:00	00:10:00	48.7	0.4	8.22	134.33	14.2	59	1035.7
07/05/2023	23:10	00:10:00	48.6	0.4	7.74	136.33	14.2	59	1035.6
07/05/2023	23:20	00:10:00	45.5	0.9	8.00	136.08	14.5	58	1035.8
07/05/2023	23:30	00:10:00	40.3	0.4	8.20	134.41	14.4	58	1036
07/05/2023	23:40	00:10:00	40.7	0	7.94	131.57	14	59	1036
07/05/2023	23:50	00:10:00	41.7	0.4	7.87	129.77	13.9	61	1036
08/05/2023	00:00	00:09:18	42.6	0.4	6.43	124.21	13.6	61	1036.1
08/05/2023	00:10	00:10:00	41.6	0.4	5.69	125.31	13.3	64	1036.1
08/05/2023	00:20	00:10:00	43.3	0.4	4.50	124.41	13.2	63	1036
08/05/2023	00:30	00:10:00	43.2	0	5.04	126.96	13.2	62	1036.1
08/05/2023	00:40	00:10:00	47.7	0	5.13	124.66	13.2	64	1036.1
08/05/2023	00:50	00:10:00	48.8	0.4	4.50	122.49	13.1	63	1036.1
08/05/2023	01:00	00:10:00	49.4	0.4	4.26	128.78	13.2	63	1036.1
08/05/2023	01:30	00:10:00	51.3	0.4	4.10	133.24	12.9	64	1036.1
08/05/2023	01:40	00:10:00	46.6	0.4	4.50	138.54	12.8	64	1036
08/05/2023	02:10	00:10:00	38.5	0.4	4.93	155.63	12.9	63	1035.9
08/05/2023	02:20	00:10:00	42.3	0.4	5.83	150.79	12.6	64	1035.9
08/05/2023	02:30	00:10:00	35.5	0	5.00	145.40	12.4	65	1035.8
08/05/2023	02:40	00:10:00	35	0	4.95	143.50	12.1	66	1035.8
08/05/2023	02:50	00:10:00	37.5	0.4	3.95	142.22	11.7	67	1035.9
08/05/2023	03:00	00:10:00	32.3	0	3.78	145.32	11.6	67	1036.1
08/05/2023	03:50	00:10:00	30.1	0	3.39	26.39	11.1	68	1035.8
08/05/2023	04:00	00:10:00	40.8	0	3.37	29.11	10.7	71	1035.7
08/05/2023	04:20	00:10:00	34.2	0	3.31	29.44	10.8	70	1035.6
08/05/2023	04:30	00:10:00	29.9	0	4.89	40.09	10.4	73	1035.6
08/05/2023	04:40	00:10:00	35.2	0	5.71	29.47	10.1	73	1035.7
08/05/2023	04:50	00:10:00	35.7	0	5.58	27.58	10.1	72	1035.7
08/05/2023	05:00	00:10:00	31.4	0	4.50	29.04	10.4	71	1035.6
08/05/2023	05:10	00:10:00	38.1	0.4	4.46	28.21	10.3	72	1035.8

**TABELLA 2**  
**Livello di rumore residuo - Periodo Notturno**

<b>Data</b> <b>[gg/mm/aaaa]</b>	<b>Ore</b> <b>[hh:mm]</b>	<b>Durata effettiva</b> <b>intervallo</b> <b>[hh:mm:ss]</b>	<b>L<sub>R</sub></b> <b>[dB(A)]</b>	<b>v<sub>r</sub></b> <b>[m/s]</b>	<b>V</b> <b>[m/s]</b>	<b>θ</b> <b>[°]</b>	<b>Temp.</b> <b>[°C]</b>	<b>Umid.</b> <b>[%]</b>	<b>Press.</b> <b>[Bar]</b>
08/05/2023	05:20	00:10:00	46.3	0	4.50	31.61	10.3	72	1035.9
08/05/2023	05:40	00:10:00	47.4	0.4	4.99	39.13	9.9	75	1036.1
08/05/2023	05:50	00:10:00	44.2	0	6.61	37.46	9.8	76	1036.1

**TABELLA 3**  
**Riordino Livello di rumore residuo - Periodo Notturno**

Data [gg/mm/aaaa]	Ore [hh:mm]	Durata effettiva intervallo [hh:mm:ss]	L <sub>R</sub> [dB(A)]	v <sub>r</sub> [m/s]	V [m/s]	θ [°]	Temp. [°C]	Umid. [%]	Press. [Bar]	Classe di v <sub>r</sub> [m/s]
03/05/2023	22:00	00:10:00	37.4	0	4.47	9.58	10.3	80	1041.7	0.0 ÷ 1.0
03/05/2023	22:10	00:10:00	36	0	4.51	6.86	10.2	81	1041.9	0.0 ÷ 1.0
03/05/2023	22:20	00:10:00	37.3	0	4.82	3.14	10.1	81	1041.8	0.0 ÷ 1.0
03/05/2023	22:30	00:10:00	36.3	0	4.65	1.00	10.1	82	1041.7	0.0 ÷ 1.0
03/05/2023	22:50	00:10:00	33.5	0	3.67	352.32	9.4	84	1041.8	0.0 ÷ 1.0
03/05/2023	23:00	00:09:54	36.6	0	3.66	351.51	9.4	83	1041.9	0.0 ÷ 1.0
03/05/2023	23:10	00:10:00	38	0	4.68	2.77	9.4	83	1042	0.0 ÷ 1.0
03/05/2023	23:20	00:10:00	32.2	0	5.41	6.00	9.4	84	1042	0.0 ÷ 1.0
03/05/2023	23:30	00:10:00	32.9	0	5.48	9.22	9.5	83	1042.1	0.0 ÷ 1.0
03/05/2023	23:40	00:10:00	32.5	0	5.55	15.53	9.4	84	1042	0.0 ÷ 1.0
04/05/2023	00:10	00:10:00	33.6	0	5.00	359.68	8.8	86	1042.1	0.0 ÷ 1.0
04/05/2023	00:20	00:10:00	33.3	0	4.99	2.89	8.8	86	1042.1	0.0 ÷ 1.0
04/05/2023	00:30	00:10:00	33.3	0	5.28	359.31	8.8	86	1042.1	0.0 ÷ 1.0
04/05/2023	00:40	00:10:00	34	0	5.22	358.93	8.4	87	1042.2	0.0 ÷ 1.0
04/05/2023	00:50	00:10:00	33.8	0	5.35	4.53	8.2	88	1042.1	0.0 ÷ 1.0
04/05/2023	01:00	00:10:00	33	0	5.12	0.39	8.3	88	1042.2	0.0 ÷ 1.0
04/05/2023	01:10	00:10:00	37.5	0	4.92	356.58	8.4	87	1042.2	0.0 ÷ 1.0
04/05/2023	01:40	00:10:00	34.7	0	4.30	353.07	8.4	87	1042	0.0 ÷ 1.0
04/05/2023	01:50	00:10:00	32.3	0	4.31	351.14	8.3	87	1042	0.0 ÷ 1.0
04/05/2023	02:00	00:10:00	32.9	0	4.26	346.20	8.2	88	1042	0.0 ÷ 1.0
04/05/2023	02:10	00:10:00	32.3	0	4.07	349.47	8	88	1042.1	0.0 ÷ 1.0
04/05/2023	02:20	00:10:00	33.2	0	4.09	352.06	7.7	89	1042.1	0.0 ÷ 1.0
04/05/2023	02:30	00:10:00	32.2	0	3.80	3.25	7.6	89	1042	0.0 ÷ 1.0
04/05/2023	02:40	00:10:00	31.6	0	3.50	354.08	7.4	90	1042	0.0 ÷ 1.0
04/05/2023	02:50	00:10:00	31.4	0	3.54	359.44	7.5	90	1042	0.0 ÷ 1.0
04/05/2023	03:00	00:10:00	32	0	3.60	0.18	7.6	89	1042	0.0 ÷ 1.0
04/05/2023	03:10	00:10:00	32.4	0	3.83	12.28	7.6	89	1042.1	0.0 ÷ 1.0
04/05/2023	03:20	00:10:00	32.2	0	4.02	8.09	7.4	90	1042.1	0.0 ÷ 1.0
04/05/2023	03:30	00:10:00	32.3	0	4.19	3.00	7.4	90	1042.1	0.0 ÷ 1.0
04/05/2023	03:50	00:10:00	32.2	0	4.51	12.16	7.5	90	1042.1	0.0 ÷ 1.0
04/05/2023	04:00	00:10:00	32	0	5.02	19.40	7.7	89	1042.2	0.0 ÷ 1.0
04/05/2023	04:10	00:10:00	32.9	0	4.85	19.07	7.5	89	1042.1	0.0 ÷ 1.0
04/05/2023	04:40	00:10:00	32.2	0	6.32	42.58	7.2	90	1042.1	0.0 ÷ 1.0
04/05/2023	04:50	00:09:07	32.2	0	5.99	37.53	7.2	90	1042.1	0.0 ÷ 1.0
04/05/2023	05:00	00:10:00	32.5	0	6.05	42.61	7.1	90	1042.1	0.0 ÷ 1.0
04/05/2023	05:10	00:10:00	32.7	0	4.92	37.43	6.9	91	1042.1	0.0 ÷ 1.0
04/05/2023	05:20	00:10:00	41.8	0	4.54	32.53	6.9	91	1042.1	0.0 ÷ 1.0
04/05/2023	05:30	00:10:00	48.1	0	4.60	38.62	6.9	91	1042.1	0.0 ÷ 1.0
04/05/2023	05:40	00:10:00	49.4	0	4.26	51.35	7	91	1042.1	0.0 ÷ 1.0
05/05/2023	22:00	00:10:00	46	0	3.66	149.89	13.4	70	1037	0.0 ÷ 1.0
05/05/2023	22:10	00:10:00	40.2	0	4.03	145.03	13.3	71	1037	0.0 ÷ 1.0
05/05/2023	22:20	00:10:00	38.7	0	3.69	159.31	13.3	71	1037.1	0.0 ÷ 1.0
05/05/2023	22:30	00:10:00	41.1	0	3.50	154.75	13.2	70	1037	0.0 ÷ 1.0
05/05/2023	22:50	00:10:00	39.6	0	3.59	160.14	13.1	70	1037.1	0.0 ÷ 1.0
06/05/2023	01:40	00:10:00	34.1	0	3.30	205.08	12.1	73	1036.6	0.0 ÷ 1.0
06/05/2023	01:50	00:10:00	32.9	0	3.30	197.38	11.6	74	1036.5	0.0 ÷ 1.0
06/05/2023	02:00	00:10:00	31.6	0	3.13	188.68	11.3	75	1036.4	0.0 ÷ 1.0
06/05/2023	02:20	00:10:00	32.3	0	3.06	200.61	11.4	75	1036.3	0.0 ÷ 1.0
06/05/2023	02:40	00:10:00	32.5	0	3.16	195.65	11.5	72	1035.9	0.0 ÷ 1.0
06/05/2023	03:00	00:10:00	30.5	0	3.45	198.11	11.5	67	1035.8	0.0 ÷ 1.0
06/05/2023	03:10	00:10:00	31.6	0	3.09	211.03	11.3	68	1035.9	0.0 ÷ 1.0
06/05/2023	03:50	00:10:00	39.5	0	3.11	162.06	10.3	74	1035.8	0.0 ÷ 1.0
06/05/2023	05:40	00:10:00	47.1	0	3.77	119.82	10.8	68	1035.4	0.0 ÷ 1.0



**TABELLA 3**  
**Riordino Livello di rumore residuo - Periodo Notturno**

Data [gg/mm/aaaa]	Ore [hh:mm]	Durata effettiva intervallo [hh:mm:ss]	L <sub>R</sub> [dB(A)]	v <sub>r</sub> [m/s]	V [m/s]	θ [°]	Temp. [°C]	Umid. [%]	Press. [Bar]	Classe di v <sub>r</sub> [m/s]
06/05/2023	05:50	00:10:00	46	0	3.77	123.12	10.6	70	1035.3	0.0 ÷ 1.0
07/05/2023	00:20	00:10:00	40.4	0	8.69	146.49	13.9	58	1035.3	0.0 ÷ 1.0
07/05/2023	00:40	00:10:00	34.6	0	8.56	148.05	13.7	63	1035.3	0.0 ÷ 1.0
07/05/2023	00:50	00:10:00	39.2	0	8.29	147.33	13.7	64	1035.3	0.0 ÷ 1.0
07/05/2023	01:10	00:10:00	32.5	0	7.28	148.42	13.4	64	1035.3	0.0 ÷ 1.0
07/05/2023	01:20	00:10:00	36	0	7.31	145.34	13.3	65	1035.3	0.0 ÷ 1.0
07/05/2023	02:30	00:10:00	35.1	0	7.04	137.88	13.2	64	1035.2	0.0 ÷ 1.0
07/05/2023	02:40	00:10:00	37.2	0	6.72	136.09	13.1	64	1035.2	0.0 ÷ 1.0
07/05/2023	02:50	00:10:00	34.4	0	5.88	136.48	13.1	65	1035.3	0.0 ÷ 1.0
07/05/2023	03:10	00:10:00	35	0	5.36	155.89	13.3	64	1035.2	0.0 ÷ 1.0
07/05/2023	03:20	00:10:00	34.1	0	4.93	162.98	13.1	64	1035.2	0.0 ÷ 1.0
07/05/2023	04:00	00:10:00	30.3	0	5.17	150.61	12.8	65	1035	0.0 ÷ 1.0
07/05/2023	04:20	00:10:00	32.1	0	4.51	147.20	13	63	1035	0.0 ÷ 1.0
07/05/2023	04:30	00:10:00	30.1	0	4.38	149.76	12.9	62	1035	0.0 ÷ 1.0
07/05/2023	04:40	00:10:00	29.7	0	5.04	135.36	12.8	63	1035.1	0.0 ÷ 1.0
07/05/2023	04:50	00:10:00	32.6	0	4.63	135.17	12.6	61	1035.2	0.0 ÷ 1.0
07/05/2023	05:00	00:10:00	34.6	0	4.69	132.81	12.7	60	1035.1	0.0 ÷ 1.0
07/05/2023	23:40	00:10:00	40.7	0	7.94	131.57	14	59	1036	0.0 ÷ 1.0
08/05/2023	00:30	00:10:00	43.2	0	5.04	126.96	13.2	62	1036.1	0.0 ÷ 1.0
08/05/2023	00:40	00:10:00	47.7	0	5.13	124.66	13.2	64	1036.1	0.0 ÷ 1.0
08/05/2023	02:30	00:10:00	35.5	0	5.00	145.40	12.4	65	1035.8	0.0 ÷ 1.0
08/05/2023	02:40	00:10:00	35	0	4.95	143.50	12.1	66	1035.8	0.0 ÷ 1.0
08/05/2023	03:00	00:10:00	32.3	0	3.78	145.32	11.6	67	1036.1	0.0 ÷ 1.0
08/05/2023	03:50	00:10:00	30.1	0	3.39	26.39	11.1	68	1035.8	0.0 ÷ 1.0
08/05/2023	04:00	00:10:00	40.8	0	3.37	29.11	10.7	71	1035.7	0.0 ÷ 1.0
08/05/2023	04:20	00:10:00	34.2	0	3.31	29.44	10.8	70	1035.6	0.0 ÷ 1.0
08/05/2023	04:30	00:10:00	29.9	0	4.89	40.09	10.4	73	1035.6	0.0 ÷ 1.0
08/05/2023	04:40	00:10:00	35.2	0	5.71	29.47	10.1	73	1035.7	0.0 ÷ 1.0
08/05/2023	04:50	00:10:00	35.7	0	5.58	27.58	10.1	72	1035.7	0.0 ÷ 1.0
08/05/2023	05:00	00:10:00	31.4	0	4.50	29.04	10.4	71	1035.6	0.0 ÷ 1.0
08/05/2023	05:20	00:10:00	46.3	0	4.50	31.61	10.3	72	1035.9	0.0 ÷ 1.0
08/05/2023	05:50	00:10:00	44.2	0	6.61	37.46	9.8	76	1036.1	0.0 ÷ 1.0
03/05/2023	22:40	00:10:00	34.2	0.4	4.23	358.26	9.5	83	1041.8	0.0 ÷ 1.0
03/05/2023	23:50	00:10:00	32.7	0.4	5.52	11.59	9.1	85	1042	0.0 ÷ 1.0
04/05/2023	00:00	00:09:17	34.1	0.4	4.96	1.09	8.9	86	1042.1	0.0 ÷ 1.0
04/05/2023	01:20	00:10:00	32.9	0.4	4.93	355.83	8.2	88	1042.1	0.0 ÷ 1.0
04/05/2023	01:30	00:10:00	33.7	0.4	4.25	351.92	8.4	88	1042	0.0 ÷ 1.0
04/05/2023	03:40	00:10:00	32	0.4	4.42	3.53	7.3	90	1042.2	0.0 ÷ 1.0
04/05/2023	04:20	00:10:00	32.8	0.4	5.07	25.68	7.5	89	1042.2	0.0 ÷ 1.0
04/05/2023	04:30	00:10:00	32.4	0.4	5.81	31.77	7.4	90	1042.2	0.0 ÷ 1.0
04/05/2023	05:50	00:10:00	44.5	0.4	3.10	55.51	7	90	1041.9	0.0 ÷ 1.0
05/05/2023	22:40	00:10:00	39.2	0.4	3.39	159.54	13.3	70	1037	0.0 ÷ 1.0
05/05/2023	23:00	00:10:00	39.5	0.4	3.70	157.82	13.2	70	1037	0.0 ÷ 1.0
05/05/2023	23:10	00:10:00	36	0.4	3.36	157.84	13.2	70	1037	0.0 ÷ 1.0
05/05/2023	23:20	00:10:00	34.1	0.4	3.25	160.48	13.4	66	1036.9	0.0 ÷ 1.0
05/05/2023	23:30	00:10:00	35.8	0.4	3.18	160.09	13.7	66	1036.9	0.0 ÷ 1.0
06/05/2023	01:00	00:10:00	36.5	0.4	3.08	191.72	12.1	74	1036.5	0.0 ÷ 1.0
06/05/2023	01:10	00:10:00	35.3	0.4	3.03	181.33	11.8	74	1036.5	0.0 ÷ 1.0
06/05/2023	01:20	00:10:00	39.5	0.4	3.15	187.29	12.2	72	1036.4	0.0 ÷ 1.0
06/05/2023	01:30	00:10:00	34	0.4	3.15	197.11	12.4	72	1036.5	0.0 ÷ 1.0
06/05/2023	02:30	00:10:00	33.5	0.4	3.34	205.66	11.7	71	1036.1	0.0 ÷ 1.0
06/05/2023	02:50	00:10:00	31.4	0.4	3.08	184.72	11.6	69	1035.9	0.0 ÷ 1.0
06/05/2023	04:50	00:10:00	30	0.4	3.31	135.80	10.5	68	1035.5	0.0 ÷ 1.0

**TABELLA 3**  
**Riordino Livello di rumore residuo - Periodo Notturno**

Data [gg/mm/aaaa]	Ore [hh:mm]	Durata effettiva intervallo [hh:mm:ss]	L <sub>R</sub> [dB(A)]	v <sub>r</sub> [m/s]	V [m/s]	θ [°]	Temp. [°C]	Umid. [%]	Press. [Bar]	Classe di v <sub>r</sub> [m/s]
06/05/2023	05:00	00:10:00	30.2	0.4	3.36	128.36	10.3	73	1035.4	0.0 ÷ 1.0
06/05/2023	05:10	00:10:00	33.8	0.4	3.32	120.20	10.1	69	1035.5	0.0 ÷ 1.0
06/05/2023	05:20	00:10:00	46	0.4	3.78	117.67	10.2	74	1035.5	0.0 ÷ 1.0
06/05/2023	05:30	00:10:00	50.7	0.4	3.98	117.65	10.6	71	1035.4	0.0 ÷ 1.0
06/05/2023	22:00	00:10:00	44.3	0.4	7.77	138.88	14.9	56	1035	0.0 ÷ 1.0
06/05/2023	22:10	00:10:00	42.9	0.4	7.71	136.09	14.9	57	1034.9	0.0 ÷ 1.0
06/05/2023	22:20	00:10:00	43.8	0.4	7.69	140.40	14.9	57	1034.9	0.0 ÷ 1.0
06/05/2023	22:30	00:10:00	41.8	0.4	7.18	141.90	14.8	57	1035	0.0 ÷ 1.0
06/05/2023	22:40	00:10:00	40.7	0.4	6.72	136.73	14.8	56	1035	0.0 ÷ 1.0
06/05/2023	22:50	00:10:00	39.9	0.4	6.01	135.43	14.8	55	1035	0.0 ÷ 1.0
06/05/2023	23:00	00:10:00	40	0.4	4.66	139.73	14.7	55	1034.9	0.0 ÷ 1.0
06/05/2023	23:20	00:10:00	41.1	0.4	7.91	138.65	14.5	58	1034.9	0.0 ÷ 1.0
06/05/2023	23:30	00:10:00	39.4	0.4	7.94	138.75	14.3	60	1034.9	0.0 ÷ 1.0
06/05/2023	23:40	00:10:00	40.7	0.4	7.55	141.36	14.2	59	1034.9	0.0 ÷ 1.0
06/05/2023	23:50	00:09:59	43.5	0.4	7.09	144.61	14.3	59	1035.2	0.0 ÷ 1.0
07/05/2023	00:00	00:09:17	39	0.4	7.12	140.94	14.2	58	1035.3	0.0 ÷ 1.0
07/05/2023	00:10	00:10:00	37.9	0.4	8.23	141.73	14.2	58	1035.3	0.0 ÷ 1.0
07/05/2023	00:30	00:10:00	35.3	0.4	8.69	146.50	13.8	60	1035.3	0.0 ÷ 1.0
07/05/2023	01:00	00:10:00	37.9	0.4	8.03	144.17	13.5	63	1035.3	0.0 ÷ 1.0
07/05/2023	01:30	00:10:00	38.1	0.4	7.19	144.81	13.3	65	1035.2	0.0 ÷ 1.0
07/05/2023	01:40	00:10:00	35.3	0.4	7.53	143.54	13.3	64	1035.1	0.0 ÷ 1.0
07/05/2023	01:50	00:10:00	37.5	0.4	6.76	147.17	13.3	65	1035.1	0.0 ÷ 1.0
07/05/2023	02:00	00:10:00	41	0.4	6.73	139.74	13.3	64	1035.2	0.0 ÷ 1.0
07/05/2023	02:10	00:10:00	35.6	0.4	7.14	139.94	13.3	64	1035.3	0.0 ÷ 1.0
07/05/2023	02:20	00:10:00	34.5	0.4	7.18	140.10	13.3	63	1035.3	0.0 ÷ 1.0
07/05/2023	03:00	00:10:00	34.5	0.4	5.21	148.32	13.1	65	1035.2	0.0 ÷ 1.0
07/05/2023	03:30	00:10:00	37.2	0.4	5.00	158.69	13.1	65	1035.1	0.0 ÷ 1.0
07/05/2023	03:50	00:10:00	33.1	0.4	4.95	155.19	13	63	1035.2	0.0 ÷ 1.0
07/05/2023	04:10	00:10:00	34	0.4	4.40	142.39	12.9	62	1035	0.0 ÷ 1.0
07/05/2023	05:10	00:10:00	33.4	0.4	4.27	144.09	12.7	61	1035.1	0.0 ÷ 1.0
07/05/2023	05:20	00:10:00	46	0.4	4.08	144.09	12.2	61	1034.8	0.0 ÷ 1.0
07/05/2023	05:30	00:10:00	48.9	0.4	3.40	140.74	11.8	64	1034.8	0.0 ÷ 1.0
07/05/2023	22:00	00:10:00	52.9	0.4	8.06	141.41	14.4	60	1035.7	0.0 ÷ 1.0
07/05/2023	22:50	00:10:00	50.4	0.4	7.76	132.12	14.2	59	1035.7	0.0 ÷ 1.0
07/05/2023	23:00	00:10:00	48.7	0.4	8.22	134.33	14.2	59	1035.7	0.0 ÷ 1.0
07/05/2023	23:10	00:10:00	48.6	0.4	7.74	136.33	14.2	59	1035.6	0.0 ÷ 1.0
07/05/2023	23:30	00:10:00	40.3	0.4	8.20	134.41	14.4	58	1036	0.0 ÷ 1.0
07/05/2023	23:50	00:10:00	41.7	0.4	7.87	129.77	13.9	61	1036	0.0 ÷ 1.0
08/05/2023	00:00	00:09:18	42.6	0.4	6.43	124.21	13.6	61	1036.1	0.0 ÷ 1.0
08/05/2023	00:10	00:10:00	41.6	0.4	5.69	125.31	13.3	64	1036.1	0.0 ÷ 1.0
08/05/2023	00:20	00:10:00	43.3	0.4	4.50	124.41	13.2	63	1036	0.0 ÷ 1.0
08/05/2023	00:50	00:10:00	48.8	0.4	4.50	122.49	13.1	63	1036.1	0.0 ÷ 1.0
08/05/2023	01:00	00:10:00	49.4	0.4	4.26	128.78	13.2	63	1036.1	0.0 ÷ 1.0
08/05/2023	01:30	00:10:00	51.3	0.4	4.10	133.24	12.9	64	1036.1	0.0 ÷ 1.0
08/05/2023	01:40	00:10:00	46.6	0.4	4.50	138.54	12.8	64	1036	0.0 ÷ 1.0
08/05/2023	02:10	00:10:00	38.5	0.4	4.93	155.63	12.9	63	1035.9	0.0 ÷ 1.0
08/05/2023	02:20	00:10:00	42.3	0.4	5.83	150.79	12.6	64	1035.9	0.0 ÷ 1.0
08/05/2023	02:50	00:10:00	37.5	0.4	3.95	142.22	11.7	67	1035.9	0.0 ÷ 1.0
08/05/2023	05:10	00:10:00	38.1	0.4	4.46	28.21	10.3	72	1035.8	0.0 ÷ 1.0
08/05/2023	05:40	00:10:00	47.4	0.4	4.99	39.13	9.9	75	1036.1	0.0 ÷ 1.0
07/05/2023	03:40	00:10:00	32	0.9	4.82	155.12	13.1	65	1035.3	0.0 ÷ 1.0
07/05/2023	22:20	00:10:00	49.6	0.9	7.45	142.17	14.5	60	1035.7	0.0 ÷ 1.0
07/05/2023	22:30	00:10:00	47.7	0.9	7.56	138.59	14.3	60	1035.6	0.0 ÷ 1.0

TABELLA 3  
Riordino Livello di rumore residuo - Periodo Notturno

Data [gg/mm/aaaa]	Ore [hh:mm]	Durata effettiva intervallo [hh:mm:ss]	L <sub>R</sub> [dB(A)]	v <sub>r</sub> [m/s]	V [m/s]	θ [°]	Temp. [°C]	Umid. [%]	Press. [Bar]	Classe di v <sub>r</sub> [m/s]
07/05/2023	22:40	00:10:00	49.9	0.9	7.81	134.76	14.1	60	1035.7	0.0 ÷ 1.0
07/05/2023	23:20	00:10:00	45.5	0.9	8.00	136.08	14.5	58	1035.8	0.0 ÷ 1.0
07/05/2023	22:10	00:10:00	50.2	1.3	7.46	142.11	14.4	60	1035.7	1.0 ÷ 2.0

TABELLA 4

Calcolo del Livello di rumore residuo medio per classi di velocità - Periodo Notturno

Data [gg/mm/aaaa]	L <sub>R</sub> [dB(A)]	v <sub>r</sub> [m/s]	V [m/s]	Classe di v <sub>r</sub> [m/s]
dal 03/05/2023 al 08/05/2023	42.0	0.2	5.1	0.0 ÷ 1.0
07/05/2023	50.2	1.3	7.5	1.0 ÷ 2.0
-	-	-	-	2.0 ÷ 3.0
-	-	-	-	3.0 ÷ 4.0
-	-	-	-	4.0 ÷ 5.0

**TABELLA 2**  
**Livello di rumore residuo - Periodo Diurno**

Data [gg/mm/aaaa]	Ore [hh:mm]	Durata effettiva intervallo [hh:mm:ss]	L <sub>R</sub> [dB(A)]	v <sub>r</sub> [m/s]	V [m/s]	θ [°]	Temp. [°C]	Umid. [%]	Press. [Bar]
09/05/2023	16:10	00:10:00	42	0.4	4.34	146.93	13.4	90	999.5
09/05/2023	16:20	00:09:22	41	0.4	4.49	150.42	13.4	90	999.3
09/05/2023	16:30	00:10:00	42.8	0.4	4.95	149.58	13.5	91	999.1
09/05/2023	16:40	00:10:00	40.8	0	6.19	133.32	13.6	89	999
09/05/2023	16:50	00:10:00	39.6	0	6.45	131.68	13.8	89	999
09/05/2023	17:00	00:10:00	40.7	0	6.18	137.24	14.1	91	998.9
09/05/2023	17:10	00:10:00	39.5	0.4	6.37	137.00	14.4	82	998.8
09/05/2023	17:20	00:10:00	45.4	0.9	6.16	135.72	14.8	80	998.8
09/05/2023	17:30	00:10:00	39.5	0.4	6.49	138.00	15.2	81	998.8
09/05/2023	17:40	00:09:24	41.5	0.9	6.66	138.60	15.2	81	998.9
09/05/2023	17:50	00:10:00	42	0.9	6.81	139.88	15.1	80	998.6
09/05/2023	18:00	00:10:00	42.1	0.9	6.49	138.44	14.9	80	998.6
09/05/2023	18:10	00:10:00	48.5	0.4	6.07	136.16	14.8	82	998.6
09/05/2023	18:30	00:10:00	40.4	0.9	6.19	139.08	13.7	86	998.5
09/05/2023	18:40	00:10:00	37.7	0.4	6.81	139.59	13.3	89	998.4
09/05/2023	18:50	00:10:00	39.7	0.4	6.68	137.62	13.3	91	998.3
09/05/2023	19:00	00:10:00	39.1	0.4	6.41	141.74	13.2	91	998.4
09/05/2023	19:10	00:10:00	39.6	0.4	6.75	136.60	13.2	92	998.4
09/05/2023	19:20	00:10:00	40.6	0.4	6.69	131.85	13.2	91	998.3
09/05/2023	19:30	00:10:00	40.5	0.4	6.49	138.19	13.1	91	998.3
09/05/2023	19:40	00:10:00	41.8	0.9	6.70	136.17	12.9	89	998.1
09/05/2023	19:50	00:10:00	39.5	0.9	6.35	131.88	12.7	89	998.2
09/05/2023	20:00	00:10:00	39.2	0.9	6.16	131.33	12.6	89	998.2
09/05/2023	20:10	00:10:00	36.9	0.9	6.97	135.43	12.5	89	998.1
09/05/2023	20:20	00:10:00	38.5	0.4	6.72	134.58	12.4	87	998.1
09/05/2023	20:30	00:10:00	37.7	0.4	6.40	143.20	12.3	89	998.1
09/05/2023	20:40	00:10:00	41.2	0.4	7.16	138.89	12.2	90	998.1
09/05/2023	20:50	00:10:00	35.9	0.4	6.96	138.36	12.1	91	998.1
09/05/2023	21:00	00:10:00	36.5	0.4	7.43	142.39	11.9	91	998
09/05/2023	21:10	00:10:00	36.3	0.4	7.11	143.35	11.8	91	998
09/05/2023	21:20	00:10:00	35.4	0.4	6.44	151.46	11.8	91	998.2
09/05/2023	21:30	00:10:00	36.6	0.4	7.44	130.43	11.7	91	998.2
09/05/2023	21:50	00:10:00	36.9	0.4	6.12	139.65	11.7	92	998
10/05/2023	10:30	00:10:00	47.2	1.8	10.05	32.38	7.9	96	994.7
10/05/2023	11:00	00:10:00	47.9	2.7	9.53	21.50	7.9	95	994.7
10/05/2023	11:10	00:10:00	49.1	2.2	7.45	15.71	7.8	94	994.6
10/05/2023	11:40	00:10:00	46.7	2.7	8.05	15.47	7.2	95	994.9
10/05/2023	11:50	00:10:00	46.3	2.7	7.58	7.33	6.8	95	995.3
10/05/2023	12:00	00:10:00	49.6	2.2	7.88	14.47	6.6	95	995.5
10/05/2023	12:10	00:10:00	45.9	2.7	7.60	20.80	6.3	95	995.6
10/05/2023	12:20	00:10:00	47.8	2.2	6.41	20.99	6.3	96	995.4
10/05/2023	12:40	00:10:00	50.4	3.1	6.97	1.20	6.2	96	994.7
10/05/2023	13:00	00:10:00	46.8	3.6	8.85	8.27	6.3	96	995
10/05/2023	13:10	00:10:00	45.9	3.1	9.52	4.17	6.4	96	995.2
10/05/2023	13:20	00:10:00	45.7	2.7	10.08	3.30	6.7	96	995.1
10/05/2023	13:30	00:10:00	44.6	1.8	10.20	5.84	7.3	96	995.2
10/05/2023	13:40	00:10:00	42.6	1.3	9.94	8.16	8	95	995.2
10/05/2023	13:50	00:10:00	43	2.2	9.38	11.29	7.2	95	995
10/05/2023	14:00	00:10:00	41.6	2.2	9.98	15.95	6.8	96	995.2
10/05/2023	14:10	00:10:00	43.3	1.8	9.12	7.73	6.7	96	995.1
10/05/2023	14:20	00:10:00	43.1	1.8	8.40	6.52	6.9	96	995.3
10/05/2023	14:30	00:10:00	41.9	2.2	8.62	4.12	6.7	96	995.6
10/05/2023	14:40	00:10:00	41.7	2.2	8.18	6.46	6.6	97	995.6

**TABELLA 2**  
**Livello di rumore residuo - Periodo Diurno**

Data [gg/mm/aaaa]	Ore [hh:mm]	Durata effettiva intervallo [hh:mm:ss]	L <sub>R</sub> [dB(A)]	v <sub>r</sub> [m/s]	V [m/s]	θ [°]	Temp. [°C]	Umid. [%]	Press. [Bar]
10/05/2023	14:50	00:10:00	42.5	1.8	8.82	4.75	6.7	97	995.4
10/05/2023	15:00	00:10:00	42.5	1.8	8.65	12.07	6.8	97	995.4
10/05/2023	15:10	00:10:00	43.9	1.8	9.29	10.76	6.9	97	995.3
10/05/2023	15:20	00:10:00	44.5	2.2	9.10	10.65	7.2	97	995.2
10/05/2023	15:30	00:10:00	44	2.2	8.09	4.66	7.3	97	995.2
10/05/2023	15:40	00:10:00	44	2.7	9.45	4.55	7.4	97	995.2
10/05/2023	15:50	00:10:00	44.9	2.2	9.87	2.35	7.4	97	995.2
10/05/2023	16:00	00:10:00	44.8	2.2	10.02	4.17	7.6	97	995.3
10/05/2023	16:10	00:10:00	45.2	1.3	10.32	1.73	7.7	97	995.4
10/05/2023	16:20	00:10:00	43.2	1.3	9.68	3.15	7.6	97	995.3
10/05/2023	16:30	00:10:00	44.2	1.3	9.15	3.20	7.6	97	995.3
10/05/2023	16:40	00:10:00	44.8	0.9	9.23	7.14	7.7	97	995.2
10/05/2023	16:50	00:09:33	44.9	1.3	8.38	1.65	7.7	97	995.2
10/05/2023	17:00	00:10:00	46.1	1.3	8.62	4.83	7.8	97	995.1
10/05/2023	17:10	00:10:00	44	1.3	9.22	7.72	7.8	97	995.3
10/05/2023	17:20	00:09:27	43.5	1.8	7.84	0.60	7.7	96	995.4
10/05/2023	17:30	00:09:27	41.7	0.9	8.22	7.16	7.8	96	995.6
10/05/2023	17:40	00:10:00	46.3	1.3	8.23	5.55	7.7	96	995.4
10/05/2023	17:50	00:10:00	45.6	1.3	8.29	6.39	7.6	96	995.7
22/05/2023	17:40	00:10:00	47.1	0.4	3.97	28.05	16.3	81	1000.8
22/05/2023	17:50	00:10:00	42.9	0.4	3.71	22.23	16.2	81	1000.8
22/05/2023	18:00	00:09:43	46.3	0.9	3.12	27.39	15.8	77	1000.7
22/05/2023	18:10	00:09:36	43.8	0.9	3.21	32.15	16	76	1000.5
22/05/2023	18:20	00:10:00	43.7	1.3	3.02	38.49	17	68	1000.5
22/05/2023	18:30	00:10:00	44.4	0.9	3.57	24.90	17.6	69	1000.6
22/05/2023	18:40	00:07:11	44.2	0.9	3.93	32.70	17.6	69	1000.5
22/05/2023	21:00	00:10:00	50.3	1.3	3.60	1.05	15.4	71	1000.8
22/05/2023	21:10	00:10:00	43.6	0.9	3.80	358.09	15.3	72	1000.7
22/05/2023	21:20	00:10:00	43.1	1.3	3.84	343.36	15.4	73	1000.8
22/05/2023	21:30	00:10:00	43.1	1.3	3.03	339.18	15	75	1000.8
23/05/2023	06:00	00:10:00	44.9	0.4	3.88	36.41	10.1	94	1000.3
23/05/2023	06:10	00:10:00	43.4	0.4	3.65	31.09	10.4	95	1000.3
23/05/2023	06:20	00:10:00	45.5	0.4	4.06	33.24	10.8	95	1000.3
23/05/2023	06:30	00:10:00	45.7	1.3	4.51	35.98	11.7	93	1000.3
23/05/2023	06:40	00:09:40	46.6	0.4	4.40	36.35	11.5	91	1000.2
23/05/2023	06:50	00:10:00	45.8	0.9	4.47	35.80	11.8	91	1000.3
23/05/2023	07:00	00:10:00	43.5	0.9	4.40	26.62	12.1	89	1000.2
23/05/2023	07:10	00:10:00	46.8	0.4	4.53	24.38	12.6	89	1000.2
23/05/2023	07:20	00:10:00	47.5	0.4	4.40	22.82	13.1	87	1000.1
23/05/2023	07:30	00:10:00	45.6	0.9	4.29	18.49	13.4	86	1000.3
23/05/2023	07:40	00:09:29	45	0.9	4.07	10.29	13.4	85	1000.3
23/05/2023	07:50	00:10:00	46.9	0.9	4.28	14.90	13.8	85	1000.3
23/05/2023	08:00	00:10:00	44.5	0.4	3.81	14.76	14.1	84	1000.3
23/05/2023	08:10	00:09:44	44.1	0.9	3.24	37.61	14.6	83	1000.4
23/05/2023	08:30	00:10:00	44.6	0.9	4.02	5.05	15.4	80	1000.3
23/05/2023	08:40	00:10:00	43	0.4	3.33	11.53	15.8	76	1000.3
23/05/2023	09:10	00:10:00	43.6	0.9	3.18	14.70	16.7	76	1000.3
23/05/2023	09:20	00:10:00	43.9	0.9	3.13	11.40	16.8	73	1000.1
23/05/2023	09:40	00:08:38	44.3	0.9	3.17	2.66	17.4	71	1000.5



**TABELLA 3**  
**Riordino Livello di rumore residuo - Periodo Diurno**

Data [gg/mm/aaaa]	Ore [hh:mm]	Durata effettiva intervallo [hh:mm:ss]	L <sub>R</sub> [dB(A)]	v <sub>r</sub> [m/s]	V [m/s]	θ [°]	Temp. [°C]	Umid. [%]	Press. [Bar]	Classe di v <sub>r</sub> [m/s]
09/05/2023	16:40	00:10:00	40.8	0	6.19	133.32	13.6	89	999	0.0 ÷ 1.0
09/05/2023	16:50	00:10:00	39.6	0	6.45	131.68	13.8	89	999	0.0 ÷ 1.0
09/05/2023	17:00	00:10:00	40.7	0	6.18	137.24	14.1	91	998.9	0.0 ÷ 1.0
09/05/2023	16:10	00:10:00	42	0.4	4.34	146.93	13.4	90	999.5	0.0 ÷ 1.0
09/05/2023	16:20	00:09:22	41	0.4	4.49	150.42	13.4	90	999.3	0.0 ÷ 1.0
09/05/2023	16:30	00:10:00	42.8	0.4	4.95	149.58	13.5	91	999.1	0.0 ÷ 1.0
09/05/2023	17:10	00:10:00	39.5	0.4	6.37	137.00	14.4	82	998.8	0.0 ÷ 1.0
09/05/2023	17:30	00:10:00	39.5	0.4	6.49	138.00	15.2	81	998.8	0.0 ÷ 1.0
09/05/2023	18:10	00:10:00	48.5	0.4	6.07	136.16	14.8	82	998.6	0.0 ÷ 1.0
09/05/2023	18:40	00:10:00	37.7	0.4	6.81	139.59	13.3	89	998.4	0.0 ÷ 1.0
09/05/2023	18:50	00:10:00	39.7	0.4	6.68	137.62	13.3	91	998.3	0.0 ÷ 1.0
09/05/2023	19:00	00:10:00	39.1	0.4	6.41	141.74	13.2	91	998.4	0.0 ÷ 1.0
09/05/2023	19:10	00:10:00	39.6	0.4	6.75	136.60	13.2	92	998.4	0.0 ÷ 1.0
09/05/2023	19:20	00:10:00	40.6	0.4	6.69	131.85	13.2	91	998.3	0.0 ÷ 1.0
09/05/2023	19:30	00:10:00	40.5	0.4	6.49	138.19	13.1	91	998.3	0.0 ÷ 1.0
09/05/2023	20:20	00:10:00	38.5	0.4	6.72	134.58	12.4	87	998.1	0.0 ÷ 1.0
09/05/2023	20:30	00:10:00	37.7	0.4	6.40	143.20	12.3	89	998.1	0.0 ÷ 1.0
09/05/2023	20:40	00:10:00	41.2	0.4	7.16	138.89	12.2	90	998.1	0.0 ÷ 1.0
09/05/2023	20:50	00:10:00	35.9	0.4	6.96	138.36	12.1	91	998.1	0.0 ÷ 1.0
09/05/2023	21:00	00:10:00	36.5	0.4	7.43	142.39	11.9	91	998	0.0 ÷ 1.0
09/05/2023	21:10	00:10:00	36.3	0.4	7.11	143.35	11.8	91	998	0.0 ÷ 1.0
09/05/2023	21:20	00:10:00	35.4	0.4	6.44	151.46	11.8	91	998.2	0.0 ÷ 1.0
09/05/2023	21:30	00:10:00	36.6	0.4	7.44	130.43	11.7	91	998.2	0.0 ÷ 1.0
09/05/2023	21:50	00:10:00	36.9	0.4	6.12	139.65	11.7	92	998	0.0 ÷ 1.0
22/05/2023	17:40	00:10:00	47.1	0.4	3.97	28.05	16.3	81	1000.8	0.0 ÷ 1.0
22/05/2023	17:50	00:10:00	42.9	0.4	3.71	22.23	16.2	81	1000.8	0.0 ÷ 1.0
23/05/2023	06:00	00:10:00	44.9	0.4	3.88	36.41	10.1	94	1000.3	0.0 ÷ 1.0
23/05/2023	06:10	00:10:00	43.4	0.4	3.65	31.09	10.4	95	1000.3	0.0 ÷ 1.0
23/05/2023	06:20	00:10:00	45.5	0.4	4.06	33.24	10.8	95	1000.3	0.0 ÷ 1.0
23/05/2023	06:40	00:09:40	46.6	0.4	4.40	36.35	11.5	91	1000.2	0.0 ÷ 1.0
23/05/2023	07:10	00:10:00	46.8	0.4	4.53	24.38	12.6	89	1000.2	0.0 ÷ 1.0
23/05/2023	07:20	00:10:00	47.5	0.4	4.40	22.82	13.1	87	1000.1	0.0 ÷ 1.0
23/05/2023	08:00	00:10:00	44.5	0.4	3.81	14.76	14.1	84	1000.3	0.0 ÷ 1.0
23/05/2023	08:40	00:10:00	43	0.4	3.33	11.53	15.8	76	1000.3	0.0 ÷ 1.0
09/05/2023	17:20	00:10:00	45.4	0.9	6.16	135.72	14.8	80	998.8	0.0 ÷ 1.0
09/05/2023	17:40	00:09:24	41.5	0.9	6.66	138.60	15.2	81	998.9	0.0 ÷ 1.0
09/05/2023	17:50	00:10:00	42	0.9	6.81	139.88	15.1	80	998.6	0.0 ÷ 1.0
09/05/2023	18:00	00:10:00	42.1	0.9	6.49	138.44	14.9	80	998.6	0.0 ÷ 1.0
09/05/2023	18:30	00:10:00	40.4	0.9	6.19	139.08	13.7	86	998.5	0.0 ÷ 1.0
09/05/2023	19:40	00:10:00	41.8	0.9	6.70	136.17	12.9	89	998.1	0.0 ÷ 1.0
09/05/2023	19:50	00:10:00	39.5	0.9	6.35	131.88	12.7	89	998.2	0.0 ÷ 1.0
09/05/2023	20:00	00:10:00	39.2	0.9	6.16	131.33	12.6	89	998.2	0.0 ÷ 1.0
09/05/2023	20:10	00:10:00	36.9	0.9	6.97	135.43	12.5	89	998.1	0.0 ÷ 1.0
10/05/2023	16:40	00:10:00	44.8	0.9	9.23	7.14	7.7	97	995.2	0.0 ÷ 1.0
10/05/2023	17:30	00:09:27	41.7	0.9	8.22	7.16	7.8	96	995.6	0.0 ÷ 1.0
22/05/2023	18:00	00:09:43	46.3	0.9	3.12	27.39	15.8	77	1000.7	0.0 ÷ 1.0
22/05/2023	18:10	00:09:36	43.8	0.9	3.21	32.15	16	76	1000.5	0.0 ÷ 1.0
22/05/2023	18:30	00:10:00	44.4	0.9	3.57	24.90	17.6	69	1000.6	0.0 ÷ 1.0
22/05/2023	18:40	00:07:11	44.2	0.9	3.93	32.70	17.6	69	1000.5	0.0 ÷ 1.0
22/05/2023	21:10	00:10:00	43.6	0.9	3.80	358.09	15.3	72	1000.7	0.0 ÷ 1.0
23/05/2023	06:50	00:10:00	45.8	0.9	4.47	35.80	11.8	91	1000.3	0.0 ÷ 1.0
23/05/2023	07:00	00:10:00	43.5	0.9	4.40	26.62	12.1	89	1000.2	0.0 ÷ 1.0
23/05/2023	07:30	00:10:00	45.6	0.9	4.29	18.49	13.4	86	1000.3	0.0 ÷ 1.0

**TABELLA 3**  
**Riordino Livello di rumore residuo - Periodo Diurno**

Data [gg/mm/aaaa]	Ore [hh:mm]	Durata effettiva intervallo [hh:mm:ss]	L <sub>R</sub> [dB(A)]	v <sub>r</sub> [m/s]	V [m/s]	θ [°]	Temp. [°C]	Umid. [%]	Press. [Bar]	Classe di v <sub>r</sub> [m/s]
23/05/2023	07:40	00:09:29	45	0.9	4.07	10.29	13.4	85	1000.3	0.0 ÷ 1.0
23/05/2023	07:50	00:10:00	46.9	0.9	4.28	14.90	13.8	85	1000.3	0.0 ÷ 1.0
23/05/2023	08:10	00:09:44	44.1	0.9	3.24	37.61	14.6	83	1000.4	0.0 ÷ 1.0
23/05/2023	08:30	00:10:00	44.6	0.9	4.02	5.05	15.4	80	1000.3	0.0 ÷ 1.0
23/05/2023	09:10	00:10:00	43.6	0.9	3.18	14.70	16.7	76	1000.3	0.0 ÷ 1.0
23/05/2023	09:20	00:10:00	43.9	0.9	3.13	11.40	16.8	73	1000.1	0.0 ÷ 1.0
23/05/2023	09:40	00:08:38	44.3	0.9	3.17	2.66	17.4	71	1000.5	0.0 ÷ 1.0
10/05/2023	13:40	00:10:00	42.6	1.3	9.94	8.16	8	95	995.2	1.0 ÷ 2.0
10/05/2023	16:10	00:10:00	45.2	1.3	10.32	1.73	7.7	97	995.4	1.0 ÷ 2.0
10/05/2023	16:20	00:10:00	43.2	1.3	9.68	3.15	7.6	97	995.3	1.0 ÷ 2.0
10/05/2023	16:30	00:10:00	44.2	1.3	9.15	3.20	7.6	97	995.3	1.0 ÷ 2.0
10/05/2023	16:50	00:09:33	44.9	1.3	8.38	1.65	7.7	97	995.2	1.0 ÷ 2.0
10/05/2023	17:00	00:10:00	46.1	1.3	8.62	4.83	7.8	97	995.1	1.0 ÷ 2.0
10/05/2023	17:10	00:10:00	44	1.3	9.22	7.72	7.8	97	995.3	1.0 ÷ 2.0
10/05/2023	17:40	00:10:00	46.3	1.3	8.23	5.55	7.7	96	995.4	1.0 ÷ 2.0
10/05/2023	17:50	00:10:00	45.6	1.3	8.29	6.39	7.6	96	995.7	1.0 ÷ 2.0
22/05/2023	18:20	00:10:00	43.7	1.3	3.02	38.49	17	68	1000.5	1.0 ÷ 2.0
22/05/2023	21:00	00:10:00	50.3	1.3	3.60	1.05	15.4	71	1000.8	1.0 ÷ 2.0
22/05/2023	21:20	00:10:00	43.1	1.3	3.84	343.36	15.4	73	1000.8	1.0 ÷ 2.0
22/05/2023	21:30	00:10:00	43.1	1.3	3.03	339.18	15	75	1000.8	1.0 ÷ 2.0
23/05/2023	06:30	00:10:00	45.7	1.3	4.51	35.98	11.7	93	1000.3	1.0 ÷ 2.0
10/05/2023	10:30	00:10:00	47.2	1.8	10.05	32.38	7.9	96	994.7	1.0 ÷ 2.0
10/05/2023	13:30	00:10:00	44.6	1.8	10.20	5.84	7.3	96	995.2	1.0 ÷ 2.0
10/05/2023	14:10	00:10:00	43.3	1.8	9.12	7.73	6.7	96	995.1	1.0 ÷ 2.0
10/05/2023	14:20	00:10:00	43.1	1.8	8.40	6.52	6.9	96	995.3	1.0 ÷ 2.0
10/05/2023	14:50	00:10:00	42.5	1.8	8.82	4.75	6.7	97	995.4	1.0 ÷ 2.0
10/05/2023	15:00	00:10:00	42.5	1.8	8.65	12.07	6.8	97	995.4	1.0 ÷ 2.0
10/05/2023	15:10	00:10:00	43.9	1.8	9.29	10.76	6.9	97	995.3	1.0 ÷ 2.0
10/05/2023	17:20	00:09:27	43.5	1.8	7.84	0.60	7.7	96	995.4	1.0 ÷ 2.0
10/05/2023	11:10	00:10:00	49.1	2.2	7.45	15.71	7.8	94	994.6	2.0 ÷ 3.0
10/05/2023	12:00	00:10:00	49.6	2.2	7.88	14.47	6.6	95	995.5	2.0 ÷ 3.0
10/05/2023	12:20	00:10:00	47.8	2.2	6.41	20.99	6.3	96	995.4	2.0 ÷ 3.0
10/05/2023	13:50	00:10:00	43	2.2	9.38	11.29	7.2	95	995	2.0 ÷ 3.0
10/05/2023	14:00	00:10:00	41.6	2.2	9.98	15.95	6.8	96	995.2	2.0 ÷ 3.0
10/05/2023	14:30	00:10:00	41.9	2.2	8.62	4.12	6.7	96	995.6	2.0 ÷ 3.0
10/05/2023	14:40	00:10:00	41.7	2.2	8.18	6.46	6.6	97	995.6	2.0 ÷ 3.0
10/05/2023	15:20	00:10:00	44.5	2.2	9.10	10.65	7.2	97	995.2	2.0 ÷ 3.0
10/05/2023	15:30	00:10:00	44	2.2	8.09	4.66	7.3	97	995.2	2.0 ÷ 3.0
10/05/2023	15:50	00:10:00	44.9	2.2	9.87	2.35	7.4	97	995.2	2.0 ÷ 3.0
10/05/2023	16:00	00:10:00	44.8	2.2	10.02	4.17	7.6	97	995.3	2.0 ÷ 3.0
10/05/2023	11:00	00:10:00	47.9	2.7	9.53	21.50	7.9	95	994.7	2.0 ÷ 3.0
10/05/2023	11:40	00:10:00	46.7	2.7	8.05	15.47	7.2	95	994.9	2.0 ÷ 3.0
10/05/2023	11:50	00:10:00	46.3	2.7	7.58	7.33	6.8	95	995.3	2.0 ÷ 3.0
10/05/2023	12:10	00:10:00	45.9	2.7	7.60	20.80	6.3	95	995.6	2.0 ÷ 3.0
10/05/2023	13:20	00:10:00	45.7	2.7	10.08	3.30	6.7	96	995.1	2.0 ÷ 3.0
10/05/2023	15:40	00:10:00	44	2.7	9.45	4.55	7.4	97	995.2	2.0 ÷ 3.0
10/05/2023	12:40	00:10:00	50.4	3.1	6.97	1.20	6.2	96	994.7	3.0 ÷ 4.0
10/05/2023	13:10	00:10:00	45.9	3.1	9.52	4.17	6.4	96	995.2	3.0 ÷ 4.0
10/05/2023	13:00	00:10:00	46.8	3.6	8.85	8.27	6.3	96	995	3.0 ÷ 4.0

TABELLA 4

Calcolo del Livello di rumore residuo medio per classi di velocità - Periodo Diurno

Data [gg/mm/aaaa]	L <sub>R</sub> [dB(A)]	v <sub>r</sub> [m/s]	V [m/s]	Classe di v <sub>r</sub> [m/s]
dal 09/05/2023 al 10/05/2023 e dal 22/05/2023 al 23/05/2023	43.2	0.6	5.4	0.0 ÷ 1.0
10/05/2023 e dal 22/05/2023 al 23/05/2023	45.0	1.5	7.8	1.0 ÷ 2.0
10/05/2023	45.9	2.4	8.7	2.0 ÷ 3.0
10/05/2023	48.2	3.3	8.4	3.0 ÷ 4.0
-	-	-	-	4.0 ÷ 5.0

**TABELLA 2**  
**Livello di rumore residuo - Periodo Notturno**

Data [gg/mm/aaaa]	Ore [hh:mm]	Durata effettiva intervallo [hh:mm:ss]	L <sub>R</sub> [dB(A)]	v <sub>r</sub> [m/s]	V [m/s]	θ [°]	Temp. [°C]	Umid. [%]	Press. [Bar]
09/05/2023	22:00	00:10:00	36.9	0.4	6.06	138.40	11.5	92	998
09/05/2023	22:10	00:10:00	38.1	0.4	5.74	136.23	11.4	93	998
09/05/2023	22:40	00:10:00	37.7	0.9	5.66	136.44	11.2	93	997.9
09/05/2023	22:50	00:10:00	43.3	0.4	6.28	134.68	11.1	94	997.8
10/05/2023	01:00	00:10:00	39.6	0.9	8.40	154.98	9.4	95	996.7
10/05/2023	01:40	00:10:00	38.1	0.4	8.25	143.30	9.5	96	996.4
10/05/2023	02:00	00:10:00	37	0.9	6.44	139.44	9.4	96	996
10/05/2023	02:10	00:10:00	37.6	0.4	4.84	137.30	9.5	96	996
10/05/2023	02:20	00:10:00	37.3	0.4	4.38	132.91	9.5	96	995.8
10/05/2023	02:50	00:10:00	37.2	0.9	3.96	134.89	9.7	96	995.4
10/05/2023	03:00	00:10:00	36.7	0.9	4.54	125.52	9.7	96	995.2
10/05/2023	03:10	00:10:00	36.1	0.9	4.34	123.17	9.7	96	995
10/05/2023	03:20	00:10:00	36.1	0.9	4.30	126.96	9.7	96	994.9
10/05/2023	03:40	00:10:00	36.5	0.9	6.11	129.29	9.8	96	994.8
10/05/2023	03:50	00:10:00	38.3	0.4	7.00	123.74	9.7	96	994.8
10/05/2023	04:00	00:08:03	41.9	0.4	6.26	131.06	9.7	96	994.7
22/05/2023	22:10	00:10:00	42.3	1.3	3.22	341.05	14.9	74	1001.1
22/05/2023	22:20	00:10:00	42.5	0.9	3.36	344.93	14.4	76	1001.1
22/05/2023	22:30	00:10:00	41.9	0.4	4.21	2.10	13.7	78	1001.4
22/05/2023	22:40	00:10:00	43.5	0	4.29	11.78	13.4	79	1001.5
22/05/2023	22:50	00:10:00	42.6	0.4	3.74	15.92	13.7	78	1001.4
22/05/2023	23:00	00:10:00	43.5	1.3	3.86	18.63	14.5	76	1001.4
22/05/2023	23:10	00:10:00	42.5	0.9	3.47	22.86	13.7	79	1001.3
22/05/2023	23:20	00:10:00	42.1	0.4	3.77	14.36	12.9	82	1001.4
22/05/2023	23:30	00:10:00	43.2	0.4	4.56	12.22	12.4	84	1001.4
22/05/2023	23:40	00:10:00	42.5	0.9	4.79	12.97	11.8	86	1001.3
22/05/2023	23:50	00:10:00	42.2	0.9	4.97	18.29	11.8	87	1001.2
23/05/2023	00:00	00:09:17	42.4	0.9	3.95	22.67	11.4	89	1001.1
23/05/2023	00:50	00:10:00	42.3	0.9	4.17	23.63	11.1	92	1001.2
23/05/2023	01:00	00:10:00	42.2	0.9	4.36	25.66	11.3	92	1001.2
23/05/2023	01:10	00:10:00	42.2	1.3	4.57	28.27	11.2	91	1001.1
23/05/2023	01:20	00:10:00	42.2	1.3	5.05	29.77	11.3	91	1000.9
23/05/2023	01:30	00:10:00	42.1	1.3	5.10	31.59	12.7	86	1000.8
23/05/2023	01:40	00:10:00	41.8	1.3	6.14	30.88	11.6	88	1000.8
23/05/2023	01:50	00:10:00	41.9	1.3	5.86	33.23	10.5	92	1001
23/05/2023	02:00	00:10:00	41.9	0.9	5.32	32.37	10.8	93	1001
23/05/2023	02:50	00:10:00	42.2	0.4	6.32	27.91	10.8	94	1000.8
23/05/2023	03:00	00:10:00	41.8	0.4	6.52	26.65	10.8	93	1000.6
23/05/2023	03:30	00:10:00	41.8	0.4	4.57	26.92	10.4	94	1000.6
23/05/2023	03:40	00:10:00	41.7	0.4	4.40	24.19	10.4	94	1000.6
23/05/2023	03:50	00:10:00	41.7	0.4	3.51	18.71	10.4	94	1000.5
23/05/2023	04:00	00:10:00	41.9	0.9	3.44	19.46	10.2	93	1000.6
23/05/2023	04:10	00:10:00	41.6	0.9	3.41	19.05	10.2	94	1000.5
23/05/2023	04:20	00:10:00	42	0.9	3.58	17.65	10.7	94	1000.4
23/05/2023	05:30	00:10:00	46.6	0.9	3.28	40.56	10.5	94	1000.3
23/05/2023	05:40	00:10:00	50.7	0.4	3.38	44.68	10.4	93	1000.2
23/05/2023	05:50	00:10:00	50.6	0.4	3.41	43.19	10.1	93	1000.3

**TABELLA 3**  
**Riordino Livello di rumore residuo - Periodo Notturno**

Data [gg/mm/aaaa]	Ore [hh:mm]	Durata effettiva intervallo [hh:mm:ss]	L <sub>R</sub> [dB(A)]	v <sub>r</sub> [m/s]	V [m/s]	θ [°]	Temp. [°C]	Umid. [%]	Press. [Bar]	Classe di v <sub>r</sub> [m/s]
22/05/2023	22:40	00:10:00	43.5	0	4.29	11.78	13.4	79	1001.5	0.0 ÷ 1.0
09/05/2023	22:00	00:10:00	36.9	0.4	6.06	138.40	11.5	92	998	0.0 ÷ 1.0
09/05/2023	22:10	00:10:00	38.1	0.4	5.74	136.23	11.4	93	998	0.0 ÷ 1.0
09/05/2023	22:50	00:10:00	43.3	0.4	6.28	134.68	11.1	94	997.8	0.0 ÷ 1.0
10/05/2023	01:40	00:10:00	38.1	0.4	8.25	143.30	9.5	96	996.4	0.0 ÷ 1.0
10/05/2023	02:10	00:10:00	37.6	0.4	4.84	137.30	9.5	96	996	0.0 ÷ 1.0
10/05/2023	02:20	00:10:00	37.3	0.4	4.38	132.91	9.5	96	995.8	0.0 ÷ 1.0
10/05/2023	03:50	00:10:00	38.3	0.4	7.00	123.74	9.7	96	994.8	0.0 ÷ 1.0
10/05/2023	04:00	00:08:03	41.9	0.4	6.26	131.06	9.7	96	994.7	0.0 ÷ 1.0
22/05/2023	22:30	00:10:00	41.9	0.4	4.21	2.10	13.7	78	1001.4	0.0 ÷ 1.0
22/05/2023	22:50	00:10:00	42.6	0.4	3.74	15.92	13.7	78	1001.4	0.0 ÷ 1.0
22/05/2023	23:20	00:10:00	42.1	0.4	3.77	14.36	12.9	82	1001.4	0.0 ÷ 1.0
22/05/2023	23:30	00:10:00	43.2	0.4	4.56	12.22	12.4	84	1001.4	0.0 ÷ 1.0
23/05/2023	02:50	00:10:00	42.2	0.4	6.32	27.91	10.8	94	1000.8	0.0 ÷ 1.0
23/05/2023	03:00	00:10:00	41.8	0.4	6.52	26.65	10.8	93	1000.6	0.0 ÷ 1.0
23/05/2023	03:30	00:10:00	41.8	0.4	4.57	26.92	10.4	94	1000.6	0.0 ÷ 1.0
23/05/2023	03:40	00:10:00	41.7	0.4	4.40	24.19	10.4	94	1000.6	0.0 ÷ 1.0
23/05/2023	03:50	00:10:00	41.7	0.4	3.51	18.71	10.4	94	1000.5	0.0 ÷ 1.0
23/05/2023	05:40	00:10:00	50.7	0.4	3.38	44.68	10.4	93	1000.2	0.0 ÷ 1.0
23/05/2023	05:50	00:10:00	50.6	0.4	3.41	43.19	10.1	93	1000.3	0.0 ÷ 1.0
09/05/2023	22:40	00:10:00	37.7	0.9	5.66	136.44	11.2	93	997.9	0.0 ÷ 1.0
10/05/2023	01:00	00:10:00	39.6	0.9	8.40	154.98	9.4	95	996.7	0.0 ÷ 1.0
10/05/2023	02:00	00:10:00	37	0.9	6.44	139.44	9.4	96	996	0.0 ÷ 1.0
10/05/2023	02:50	00:10:00	37.2	0.9	3.96	134.89	9.7	96	995.4	0.0 ÷ 1.0
10/05/2023	03:00	00:10:00	36.7	0.9	4.54	125.52	9.7	96	995.2	0.0 ÷ 1.0
10/05/2023	03:10	00:10:00	36.1	0.9	4.34	123.17	9.7	96	995	0.0 ÷ 1.0
10/05/2023	03:20	00:10:00	36.1	0.9	4.30	126.96	9.7	96	994.9	0.0 ÷ 1.0
10/05/2023	03:40	00:10:00	36.5	0.9	6.11	129.29	9.8	96	994.8	0.0 ÷ 1.0
22/05/2023	22:20	00:10:00	42.5	0.9	3.36	344.93	14.4	76	1001.1	0.0 ÷ 1.0
22/05/2023	23:10	00:10:00	42.5	0.9	3.47	22.86	13.7	79	1001.3	0.0 ÷ 1.0
22/05/2023	23:40	00:10:00	42.5	0.9	4.79	12.97	11.8	86	1001.3	0.0 ÷ 1.0
22/05/2023	23:50	00:10:00	42.2	0.9	4.97	18.29	11.8	87	1001.2	0.0 ÷ 1.0
23/05/2023	00:00	00:09:17	42.4	0.9	3.95	22.67	11.4	89	1001.1	0.0 ÷ 1.0
23/05/2023	00:50	00:10:00	42.3	0.9	4.17	23.63	11.1	92	1001.2	0.0 ÷ 1.0
23/05/2023	01:00	00:10:00	42.2	0.9	4.36	25.66	11.3	92	1001.2	0.0 ÷ 1.0
23/05/2023	02:00	00:10:00	41.9	0.9	5.32	32.37	10.8	93	1001	0.0 ÷ 1.0
23/05/2023	04:00	00:10:00	41.9	0.9	3.44	19.46	10.2	93	1000.6	0.0 ÷ 1.0
23/05/2023	04:10	00:10:00	41.6	0.9	3.41	19.05	10.2	94	1000.5	0.0 ÷ 1.0
23/05/2023	04:20	00:10:00	42	0.9	3.58	17.65	10.7	94	1000.4	0.0 ÷ 1.0
23/05/2023	05:30	00:10:00	46.6	0.9	3.28	40.56	10.5	94	1000.3	0.0 ÷ 1.0
22/05/2023	22:10	00:10:00	42.3	1.3	3.22	341.05	14.9	74	1001.1	1.0 ÷ 2.0
22/05/2023	23:00	00:10:00	43.5	1.3	3.86	18.63	14.5	76	1001.4	1.0 ÷ 2.0
23/05/2023	01:10	00:10:00	42.2	1.3	4.57	28.27	11.2	91	1001.1	1.0 ÷ 2.0
23/05/2023	01:20	00:10:00	42.2	1.3	5.05	29.77	11.3	91	1000.9	1.0 ÷ 2.0
23/05/2023	01:30	00:10:00	42.1	1.3	5.10	31.59	12.7	86	1000.8	1.0 ÷ 2.0
23/05/2023	01:40	00:10:00	41.8	1.3	6.14	30.88	11.6	88	1000.8	1.0 ÷ 2.0
23/05/2023	01:50	00:10:00	41.9	1.3	5.86	33.23	10.5	92	1001	1.0 ÷ 2.0

TABELLA 4

Calcolo del Livello di rumore residuo medio per classi di velocità - Periodo Notturno

Data [gg/mm/aaaa]	L <sub>R</sub> [dB(A)]	v <sub>r</sub> [m/s]	V [m/s]	Classe di v <sub>r</sub> [m/s]
dal 09/05/2023 al 10/05/2023 e dal 22/05/2023 al 23/05/2023	42.7	0.6	4.8	0.0 ÷ 1.0
dal 22/05/2023 al 23/05/2023	42.3	1.3	4.8	1.0 ÷ 2.0
-	-	-	-	2.0 ÷ 3.0
-	-	-	-	3.0 ÷ 4.0
-	-	-	-	4.0 ÷ 5.0



**TABELLA 2**  
**Livello di rumore residuo - Periodo Diurno**

Data	Ore	Durata effettiva intervallo	L <sub>R</sub>	v <sub>r</sub>	V	θ	Temp.	Umid.	Press.
[gg/mm/aaaa]	[hh:mm]	[hh:mm:ss]	[dB(A)]	[m/s]	[m/s]	[°]	[°C]	[%]	[Bar]
08/05/2023	13:10	00:09:38	41.3	0.9	6.44	36.54	18.8	55	1009.3
08/05/2023	13:20	00:09:55	42.7	0.9	5.73	24.59	18.4	58	1009.2
08/05/2023	13:30	00:09:46	36.4	0.4	5.93	42.13	18.2	61	1009.5
08/05/2023	13:40	00:10:00	38.1	1.8	6.68	16.38	17.1	64	1009
08/05/2023	13:50	00:10:00	39	0.9	6.21	20.94	16.8	63	1009.2
08/05/2023	14:00	00:09:26	35.3	1.3	5.77	28.70	16.6	68	1009.2
08/05/2023	14:10	00:09:32	35.7	0.9	6.88	25.17	17.3	66	1009.2
08/05/2023	14:20	00:09:51	37.2	0.9	6.25	22.13	18.8	58	1009
08/05/2023	14:30	00:07:38	38	1.3	5.72	18.46	19.3	61	1009.1
08/05/2023	14:40	00:10:00	39.2	1.8	5.44	23.91	18.6	60	1009.3
08/05/2023	14:50	00:10:00	43.2	1.3	6.55	20.57	17.7	65	1009.4
08/05/2023	15:00	00:09:30	39.3	1.8	5.93	17.59	17.1	65	1009.5
08/05/2023	15:10	00:10:00	38.3	0.9	6.09	21.85	17.6	65	1009.4
08/05/2023	15:20	00:10:00	38.6	1.3	4.84	2.72	18.3	61	1009.3
08/05/2023	15:30	00:09:53	38.4	1.3	4.71	8.55	18.6	61	1009.1
08/05/2023	15:40	00:10:00	41.1	1.3	4.86	11.08	18	61	1009.1
08/05/2023	15:50	00:10:00	38.6	1.3	5.63	12.29	17.5	62	1009
08/05/2023	16:00	00:09:18	41.8	0.9	4.48	21.23	17.6	63	1008.9
08/05/2023	16:10	00:10:00	40.5	1.3	6.03	9.78	17.1	67	1009
08/05/2023	16:20	00:10:00	35.9	0.9	6.59	7.84	16.8	66	1009.2
08/05/2023	16:30	00:09:51	36.3	1.3	6.47	1.22	16.6	69	1009.1
08/05/2023	16:40	00:10:00	44.4	1.3	6.58	6.56	16.4	71	1009.2
08/05/2023	16:50	00:10:00	43.4	0.9	6.14	25.69	16.3	72	1009.1
08/05/2023	17:00	00:08:37	41.6	0.9	5.87	21.08	16.2	72	1009
08/05/2023	17:10	00:10:00	40.3	0.9	6.30	20.40	16.1	71	1009.2
08/05/2023	17:20	00:10:00	45	0.9	5.84	27.59	16.4	70	1009.2
08/05/2023	17:30	00:09:50	43.1	0.9	5.07	22.68	17	68	1009
08/05/2023	17:40	00:10:00	41.9	0.9	4.85	18.14	17	69	1009.1
08/05/2023	17:50	00:10:00	36.4	0.9	5.00	28.23	16.7	69	1009.3
08/05/2023	18:00	00:09:18	38.6	0.9	5.01	32.69	16.4	71	1009.2
08/05/2023	18:10	00:10:00	33.8	0.9	4.90	43.00	16.6	71	1009.3
08/05/2023	18:20	00:09:55	37.2	0.9	4.02	33.72	16.7	70	1009.3
08/05/2023	18:30	00:09:52	43.3	0.9	4.06	25.07	16.6	71	1009.4
08/05/2023	18:40	00:10:00	33.1	0.9	4.69	23.29	16.6	71	1009.4
08/05/2023	18:50	00:10:00	34.6	0.9	5.26	23.93	16.4	71	1009.5
08/05/2023	19:00	00:09:12	40.5	0.4	4.49	28.28	16.3	71	1009.3
08/05/2023	19:10	00:09:55	44.7	0.9	5.16	21.07	16.1	72	1009.5
08/05/2023	19:20	00:10:00	38.1	0.9	4.91	19.75	15.8	73	1009.4
08/05/2023	19:30	00:09:52	43.8	0.9	4.61	26.87	15.7	69	1009.4
08/05/2023	19:40	00:10:00	39.1	0.4	4.89	24.33	15.9	69	1009.6
08/05/2023	19:50	00:09:50	42.3	0	4.65	38.11	16.1	71	1009.8
08/05/2023	20:00	00:08:53	45.8	0	4.96	39.24	15.9	72	1009.8
08/05/2023	20:10	00:08:44	45.3	0	4.95	38.07	15.6	74	1009.9
08/05/2023	20:20	00:10:00	40	0	3.89	37.72	15.4	75	1009.9
08/05/2023	21:00	00:08:53	25.4	0	3.09	12.08	13.7	78	1010.4
08/05/2023	21:10	00:10:00	31.4	0	3.74	15.19	13.3	79	1010.5
08/05/2023	21:20	00:10:00	30.7	0	3.64	31.53	13.3	80	1010.6
08/05/2023	21:30	00:09:43	24.9	0.4	4.38	40.54	13.7	79	1010.8
08/05/2023	21:40	00:10:00	27.7	0	4.04	39.20	13.9	77	1011
08/05/2023	21:50	00:10:00	32.6	0	4.43	33.92	14	79	1011.1
09/05/2023	06:00	00:09:11	45	0.4	5.47	41.85	10.4	86	1009.5
09/05/2023	06:10	00:10:00	44.1	0	5.47	45.00	10.3	86	1009.3
09/05/2023	06:20	00:09:55	41.5	0	4.26	43.73	10.1	86	1009.5

**TABELLA 2**  
**Livello di rumore residuo - Periodo Diurno**

Data [gg/mm/aaaa]	Ore [hh:mm]	Durata effettiva intervallo [hh:mm:ss]	L <sub>R</sub> [dB(A)]	v <sub>r</sub> [m/s]	V [m/s]	θ [°]	Temp. [°C]	Umid. [%]	Press. [Bar]
09/05/2023	06:30	00:09:48	40.2	0	3.52	50.12	10	87	1009.7
09/05/2023	06:50	00:09:50	45.4	0	3.51	27.61	10.1	87	1009.7
09/05/2023	07:00	00:09:07	39.7	0	4.03	41.78	10.2	87	1009.8
09/05/2023	07:10	00:10:00	39.7	0	3.71	58.45	10.4	86	1010
09/05/2023	08:50	00:10:00	42.5	0	3.08	25.68	13.2	82	1009.6
09/05/2023	09:20	00:10:00	37.5	0.4	3.10	33.03	15.5	74	1009.3
09/05/2023	09:50	00:10:00	39.3	0.4	3.03	4.88	17.4	64	1009.4
09/05/2023	10:00	00:09:09	44.3	0.4	3.25	7.22	17.5	62	1009.4
09/05/2023	10:10	00:10:00	44.7	0.4	3.40	10.13	18	63	1009.3
09/05/2023	10:20	00:10:00	44.3	0.9	3.35	1.05	17.8	65	1009.3
09/05/2023	10:50	00:10:00	40	0	3.07	53.00	17.2	67	1009.2
09/05/2023	11:00	00:08:43	43.5	0.4	3.23	21.29	16.7	66	1009.1
09/05/2023	11:40	00:09:50	43.3	0.4	3.06	4.67	16.6	69	1008.9
09/05/2023	11:50	00:09:50	49.6	0.4	3.78	13.27	17.2	65	1008.8
09/05/2023	12:20	00:09:50	44.7	0.9	3.07	128.07	17.9	60	1008.7
09/05/2023	12:30	00:09:50	40.7	0.9	4.95	143.10	17.6	61	1008.8
09/05/2023	12:40	00:09:51	41.1	0.9	4.10	134.80	17.2	62	1008.7
09/05/2023	12:50	00:10:00	45.5	0.4	3.20	170.01	17.3	62	1008.4
09/05/2023	13:00	00:09:30	46.1	0.9	3.20	193.31	17.4	62	1008.4

**TABELLA 3**  
**Riordino Livello di rumore residuo - Periodo Diurno**

Data [gg/mm/aaaa]	Ore [hh:mm]	Durata effettiva intervallo [hh:mm:ss]	L <sub>R</sub> [dB(A)]	v <sub>r</sub> [m/s]	V [m/s]	θ [°]	Temp. [°C]	Umid. [%]	Press. [Bar]	Classe di v <sub>r</sub> [m/s]
08/05/2023	19:50	00:09:50	42.3	0	4.65	38.11	16.1	71	1009.8	0.0 ÷ 1.0
08/05/2023	20:00	00:08:53	45.8	0	4.96	39.24	15.9	72	1009.8	0.0 ÷ 1.0
08/05/2023	20:10	00:08:44	45.3	0	4.95	38.07	15.6	74	1009.9	0.0 ÷ 1.0
08/05/2023	20:20	00:10:00	40	0	3.89	37.72	15.4	75	1009.9	0.0 ÷ 1.0
08/05/2023	21:00	00:08:53	25.4	0	3.09	12.08	13.7	78	1010.4	0.0 ÷ 1.0
08/05/2023	21:10	00:10:00	31.4	0	3.74	15.19	13.3	79	1010.5	0.0 ÷ 1.0
08/05/2023	21:20	00:10:00	30.7	0	3.64	31.53	13.3	80	1010.6	0.0 ÷ 1.0
08/05/2023	21:40	00:10:00	27.7	0	4.04	39.20	13.9	77	1011	0.0 ÷ 1.0
08/05/2023	21:50	00:10:00	32.6	0	4.43	33.92	14	79	1011.1	0.0 ÷ 1.0
09/05/2023	06:10	00:10:00	44.1	0	5.47	45.00	10.3	86	1009.3	0.0 ÷ 1.0
09/05/2023	06:20	00:09:55	41.5	0	4.26	43.73	10.1	86	1009.5	0.0 ÷ 1.0
09/05/2023	06:30	00:09:48	40.2	0	3.52	50.12	10	87	1009.7	0.0 ÷ 1.0
09/05/2023	06:50	00:09:50	45.4	0	3.51	27.61	10.1	87	1009.7	0.0 ÷ 1.0
09/05/2023	07:00	00:09:07	39.7	0	4.03	41.78	10.2	87	1009.8	0.0 ÷ 1.0
09/05/2023	07:10	00:10:00	39.7	0	3.71	58.45	10.4	86	1010	0.0 ÷ 1.0
09/05/2023	08:50	00:10:00	42.5	0	3.08	25.68	13.2	82	1009.6	0.0 ÷ 1.0
09/05/2023	10:50	00:10:00	40	0	3.07	53.00	17.2	67	1009.2	0.0 ÷ 1.0
08/05/2023	13:30	00:09:46	36.4	0.4	5.93	42.13	18.2	61	1009.5	0.0 ÷ 1.0
08/05/2023	19:00	00:09:12	40.5	0.4	4.49	28.28	16.3	71	1009.3	0.0 ÷ 1.0
08/05/2023	19:40	00:10:00	39.1	0.4	4.89	24.33	15.9	69	1009.6	0.0 ÷ 1.0
08/05/2023	21:30	00:09:43	24.9	0.4	4.38	40.54	13.7	79	1010.8	0.0 ÷ 1.0
09/05/2023	06:00	00:09:11	45	0.4	5.47	41.85	10.4	86	1009.5	0.0 ÷ 1.0
09/05/2023	09:20	00:10:00	37.5	0.4	3.10	33.03	15.5	74	1009.3	0.0 ÷ 1.0
09/05/2023	09:50	00:10:00	39.3	0.4	3.03	4.88	17.4	64	1009.4	0.0 ÷ 1.0
09/05/2023	10:00	00:09:09	44.3	0.4	3.25	7.22	17.5	62	1009.4	0.0 ÷ 1.0
09/05/2023	10:10	00:10:00	44.7	0.4	3.40	10.13	18	63	1009.3	0.0 ÷ 1.0
09/05/2023	11:00	00:08:43	43.5	0.4	3.23	21.29	16.7	66	1009.1	0.0 ÷ 1.0
09/05/2023	11:40	00:09:50	43.3	0.4	3.06	4.67	16.6	69	1008.9	0.0 ÷ 1.0
09/05/2023	11:50	00:09:50	49.6	0.4	3.78	13.27	17.2	65	1008.8	0.0 ÷ 1.0
09/05/2023	12:50	00:10:00	45.5	0.4	3.20	170.01	17.3	62	1008.4	0.0 ÷ 1.0
08/05/2023	13:10	00:09:38	41.3	0.9	6.44	36.54	18.8	55	1009.3	0.0 ÷ 1.0
08/05/2023	13:20	00:09:55	42.7	0.9	5.73	24.59	18.4	58	1009.2	0.0 ÷ 1.0
08/05/2023	13:50	00:10:00	39	0.9	6.21	20.94	16.8	63	1009.2	0.0 ÷ 1.0
08/05/2023	14:10	00:09:32	35.7	0.9	6.88	25.17	17.3	66	1009.2	0.0 ÷ 1.0
08/05/2023	14:20	00:09:51	37.2	0.9	6.25	22.13	18.8	58	1009	0.0 ÷ 1.0
08/05/2023	15:10	00:10:00	38.3	0.9	6.09	21.85	17.6	65	1009.4	0.0 ÷ 1.0
08/05/2023	16:00	00:09:18	41.8	0.9	4.48	21.23	17.6	63	1008.9	0.0 ÷ 1.0
08/05/2023	16:20	00:10:00	35.9	0.9	6.59	7.84	16.8	66	1009.2	0.0 ÷ 1.0
08/05/2023	16:50	00:10:00	43.4	0.9	6.14	25.69	16.3	72	1009.1	0.0 ÷ 1.0
08/05/2023	17:00	00:08:37	41.6	0.9	5.87	21.08	16.2	72	1009	0.0 ÷ 1.0
08/05/2023	17:10	00:10:00	40.3	0.9	6.30	20.40	16.1	71	1009.2	0.0 ÷ 1.0
08/05/2023	17:20	00:10:00	45	0.9	5.84	27.59	16.4	70	1009.2	0.0 ÷ 1.0
08/05/2023	17:30	00:09:50	43.1	0.9	5.07	22.68	17	68	1009	0.0 ÷ 1.0
08/05/2023	17:40	00:10:00	41.9	0.9	4.85	18.14	17	69	1009.1	0.0 ÷ 1.0
08/05/2023	17:50	00:10:00	36.4	0.9	5.00	28.23	16.7	69	1009.3	0.0 ÷ 1.0
08/05/2023	18:00	00:09:18	38.6	0.9	5.01	32.69	16.4	71	1009.2	0.0 ÷ 1.0
08/05/2023	18:10	00:10:00	33.8	0.9	4.90	43.00	16.6	71	1009.3	0.0 ÷ 1.0
08/05/2023	18:20	00:09:55	37.2	0.9	4.02	33.72	16.7	70	1009.3	0.0 ÷ 1.0
08/05/2023	18:30	00:09:52	43.3	0.9	4.06	25.07	16.6	71	1009.4	0.0 ÷ 1.0
08/05/2023	18:40	00:10:00	33.1	0.9	4.69	23.29	16.6	71	1009.4	0.0 ÷ 1.0
08/05/2023	18:50	00:10:00	34.6	0.9	5.26	23.93	16.4	71	1009.5	0.0 ÷ 1.0
08/05/2023	19:10	00:09:55	44.7	0.9	5.16	21.07	16.1	72	1009.5	0.0 ÷ 1.0
08/05/2023	19:20	00:10:00	38.1	0.9	4.91	19.75	15.8	73	1009.4	0.0 ÷ 1.0

**TABELLA 3**  
**Riordino Livello di rumore residuo - Periodo Diurno**

Data [gg/mm/aaaa]	Ore [hh:mm]	Durata effettiva intervallo [hh:mm:ss]	L <sub>R</sub> [dB(A)]	v <sub>r</sub> [m/s]	V [m/s]	θ [°]	Temp. [°C]	Umid. [%]	Press. [Bar]	Classe di v <sub>r</sub> [m/s]
08/05/2023	19:30	00:09:52	43.8	0.9	4.61	26.87	15.7	69	1009.4	0.0 ÷ 1.0
09/05/2023	10:20	00:10:00	44.3	0.9	3.35	1.05	17.8	65	1009.3	0.0 ÷ 1.0
09/05/2023	12:20	00:09:50	44.7	0.9	3.07	128.07	17.9	60	1008.7	0.0 ÷ 1.0
09/05/2023	12:30	00:09:50	40.7	0.9	4.95	143.10	17.6	61	1008.8	0.0 ÷ 1.0
09/05/2023	12:40	00:09:51	41.1	0.9	4.10	134.80	17.2	62	1008.7	0.0 ÷ 1.0
09/05/2023	13:00	00:09:30	46.1	0.9	3.20	193.31	17.4	62	1008.4	0.0 ÷ 1.0
08/05/2023	14:00	00:09:26	35.3	1.3	5.77	28.70	16.6	68	1009.2	1.0 ÷ 2.0
08/05/2023	14:30	00:07:38	38	1.3	5.72	18.46	19.3	61	1009.1	1.0 ÷ 2.0
08/05/2023	14:50	00:10:00	43.2	1.3	6.55	20.57	17.7	65	1009.4	1.0 ÷ 2.0
08/05/2023	15:20	00:10:00	38.6	1.3	4.84	2.72	18.3	61	1009.3	1.0 ÷ 2.0
08/05/2023	15:30	00:09:53	38.4	1.3	4.71	8.55	18.6	61	1009.1	1.0 ÷ 2.0
08/05/2023	15:40	00:10:00	41.1	1.3	4.86	11.08	18	61	1009.1	1.0 ÷ 2.0
08/05/2023	15:50	00:10:00	38.6	1.3	5.63	12.29	17.5	62	1009	1.0 ÷ 2.0
08/05/2023	16:10	00:10:00	40.5	1.3	6.03	9.78	17.1	67	1009	1.0 ÷ 2.0
08/05/2023	16:30	00:09:51	36.3	1.3	6.47	1.22	16.6	69	1009.1	1.0 ÷ 2.0
08/05/2023	16:40	00:10:00	44.4	1.3	6.58	6.56	16.4	71	1009.2	1.0 ÷ 2.0
08/05/2023	13:40	00:10:00	38.1	1.8	6.68	16.38	17.1	64	1009	1.0 ÷ 2.0
08/05/2023	14:40	00:10:00	39.2	1.8	5.44	23.91	18.6	60	1009.3	1.0 ÷ 2.0
08/05/2023	15:00	00:09:30	39.3	1.8	5.93	17.59	17.1	65	1009.5	1.0 ÷ 2.0

TABELLA 4

Calcolo del Livello di rumore residuo medio per classi di velocità - Periodo Diurno

Data [gg/mm/aaaa]	L <sub>R</sub> [dB(A)]	v <sub>r</sub> [m/s]	V [m/s]	Classe di v <sub>r</sub> [m/s]
dal 08/05/2023 al 09/05/2023	42.0	0.5	4.5	0.0 ÷ 1.0
dal 08/05/2023 al 09/05/2023	40.1	1.4	5.8	1.0 ÷ 2.0
-	-	-	-	2.0 ÷ 3.0
-	-	-	-	3.0 ÷ 4.0
-	-	-	-	4.0 ÷ 5.0

**TABELLA 2**  
**Livello di rumore residuo - Periodo Notturno**

Data [gg/mm/aaaa]	Ore [hh:mm]	Durata effettiva intervallo [hh:mm:ss]	L <sub>R</sub> [dB(A)]	v <sub>r</sub> [m/s]	V [m/s]	θ [°]	Temp. [°C]	Umid. [%]	Press. [Bar]
08/05/2023	22:00	00:08:43	23.8	0	4.53	37.63	13.9	79	1011.1
08/05/2023	22:10	00:10:00	32	0	3.94	29.25	13.7	80	1011.3
08/05/2023	22:20	00:10:00	31.5	0	4.19	19.76	13.3	80	1011.2
08/05/2023	22:30	00:09:41	31.7	0	4.02	25.69	13	82	1011.2
08/05/2023	22:40	00:10:00	25.1	0	4.24	23.29	12.8	82	1011
08/05/2023	22:50	00:10:00	26.1	0.4	4.36	6.84	12.6	82	1010.9
08/05/2023	23:00	00:08:37	37.5	0.4	4.93	9.76	12.5	81	1010.9
08/05/2023	23:10	00:10:00	26.2	0	4.70	8.89	12.6	82	1010.8
08/05/2023	23:20	00:10:00	32.3	0	4.89	10.37	12.7	82	1010.7
08/05/2023	23:30	00:09:43	23.3	0	4.96	15.94	12.7	82	1010.8
08/05/2023	23:40	00:10:00	26.7	0	5.12	22.89	12.6	82	1010.7
08/05/2023	23:50	00:10:00	23.9	0	4.79	10.29	12.4	83	1010.9
09/05/2023	00:00	00:07:51	23.7	0	4.54	20.16	12.5	83	1010.7
09/05/2023	00:10	00:10:00	23.9	0.4	5.13	25.44	12.5	82	1010.6
09/05/2023	00:20	00:10:00	33.8	0	5.50	31.53	12.4	83	1010.7
09/05/2023	00:30	00:09:36	24.9	0	5.05	22.18	12.3	83	1010.7
09/05/2023	00:40	00:10:00	24.1	0	4.93	28.42	12.2	82	1010.7
09/05/2023	00:50	00:10:00	24.5	0	4.55	29.08	11.9	82	1010.7
09/05/2023	01:00	00:09:20	25.1	0.4	4.43	28.09	11.8	83	1010.6
09/05/2023	01:10	00:10:00	24.8	0.4	4.66	36.38	12	83	1010.6
09/05/2023	01:20	00:10:00	24.4	0.4	4.18	36.54	12.2	82	1010.5
09/05/2023	01:30	00:09:41	25.1	0	3.98	27.02	12.1	84	1010.5
09/05/2023	01:40	00:10:00	24.1	0	3.79	29.83	11.8	83	1010.5
09/05/2023	01:50	00:10:00	24.4	0.4	3.45	20.56	11.6	83	1010.4
09/05/2023	02:00	00:09:14	24.7	0.4	3.31	7.72	11.6	84	1010.3
09/05/2023	02:10	00:10:00	33.1	0	4.02	24.10	11.6	85	1010.2
09/05/2023	02:20	00:10:00	27.9	0	4.91	25.12	11.5	86	1010
09/05/2023	02:30	00:09:40	25	0	3.76	16.89	11.3	86	1010.1
09/05/2023	02:40	00:10:00	24	0	3.31	16.12	11.1	86	1010
09/05/2023	03:00	00:09:17	27.3	0.4	3.59	7.93	10.8	86	1009.8
09/05/2023	03:10	00:10:00	25.1	0	4.80	13.43	10.8	88	1009.7
09/05/2023	03:20	00:10:00	24.6	0	5.01	15.42	10.8	87	1009.6
09/05/2023	03:30	00:09:42	25.9	0.4	4.62	12.56	11	88	1009.6
09/05/2023	03:40	00:10:00	24.6	0	4.76	16.88	10.8	86	1009.6
09/05/2023	03:50	00:10:00	25.1	0.4	4.57	13.82	11.2	84	1009.8
09/05/2023	04:00	00:09:08	27.5	0.4	4.08	7.82	11.4	83	1009.8
09/05/2023	04:10	00:10:00	27.9	0.4	5.04	26.35	11.3	83	1009.6
09/05/2023	04:20	00:10:00	29.3	0.4	5.03	22.26	11.3	83	1009.7
09/05/2023	04:30	00:09:41	26.3	0.9	5.42	28.82	11.7	81	1009.7
09/05/2023	04:40	00:10:00	28.7	0.4	4.53	29.85	11.9	81	1009.7
09/05/2023	04:50	00:10:00	29.4	0.9	4.89	37.45	11.8	82	1009.6
09/05/2023	05:00	00:09:05	33.5	1.3	5.02	34.82	11.7	84	1009.8
09/05/2023	05:10	00:10:00	37.4	0.9	4.99	30.86	11.7	82	1009.5
09/05/2023	05:20	00:10:00	47.2	0.9	5.24	33.23	12.1	81	1009.5
09/05/2023	05:30	00:07:28	51.5	0	5.16	37.25	11.7	82	1009.6
09/05/2023	05:40	00:09:46	49.9	0	5.10	45.08	11.1	83	1009.5
09/05/2023	05:50	00:09:55	48.9	0	5.06	39.99	10.6	85	1009.4



**TABELLA 3**  
**Riordino Livello di rumore residuo - Periodo Notturno**

Data [gg/mm/aaaa]	Ore [hh:mm]	Durata effettiva intervallo [hh:mm:ss]	L <sub>R</sub> [dB(A)]	v <sub>r</sub> [m/s]	V [m/s]	θ [°]	Temp. [°C]	Umid. [%]	Press. [Bar]	Classe di v <sub>r</sub> [m/s]
08/05/2023	22:00	00:08:43	23.8	0	4.53	37.63	13.9	79	1011.1	0.0 ÷ 1.0
08/05/2023	22:10	00:10:00	32	0	3.94	29.25	13.7	80	1011.3	0.0 ÷ 1.0
08/05/2023	22:20	00:10:00	31.5	0	4.19	19.76	13.3	80	1011.2	0.0 ÷ 1.0
08/05/2023	22:30	00:09:41	31.7	0	4.02	25.69	13	82	1011.2	0.0 ÷ 1.0
08/05/2023	22:40	00:10:00	25.1	0	4.24	23.29	12.8	82	1011	0.0 ÷ 1.0
08/05/2023	23:10	00:10:00	26.2	0	4.70	8.89	12.6	82	1010.8	0.0 ÷ 1.0
08/05/2023	23:20	00:10:00	32.3	0	4.89	10.37	12.7	82	1010.7	0.0 ÷ 1.0
08/05/2023	23:30	00:09:43	23.3	0	4.96	15.94	12.7	82	1010.8	0.0 ÷ 1.0
08/05/2023	23:40	00:10:00	26.7	0	5.12	22.89	12.6	82	1010.7	0.0 ÷ 1.0
08/05/2023	23:50	00:10:00	23.9	0	4.79	10.29	12.4	83	1010.9	0.0 ÷ 1.0
09/05/2023	00:00	00:07:51	23.7	0	4.54	20.16	12.5	83	1010.7	0.0 ÷ 1.0
09/05/2023	00:20	00:10:00	33.8	0	5.50	31.53	12.4	83	1010.7	0.0 ÷ 1.0
09/05/2023	00:30	00:09:36	24.9	0	5.05	22.18	12.3	83	1010.7	0.0 ÷ 1.0
09/05/2023	00:40	00:10:00	24.1	0	4.93	28.42	12.2	82	1010.7	0.0 ÷ 1.0
09/05/2023	00:50	00:10:00	24.5	0	4.55	29.08	11.9	82	1010.7	0.0 ÷ 1.0
09/05/2023	01:30	00:09:41	25.1	0	3.98	27.02	12.1	84	1010.5	0.0 ÷ 1.0
09/05/2023	01:40	00:10:00	24.1	0	3.79	29.83	11.8	83	1010.5	0.0 ÷ 1.0
09/05/2023	02:10	00:10:00	33.1	0	4.02	24.10	11.6	85	1010.2	0.0 ÷ 1.0
09/05/2023	02:20	00:10:00	27.9	0	4.91	25.12	11.5	86	1010	0.0 ÷ 1.0
09/05/2023	02:30	00:09:40	25	0	3.76	16.89	11.3	86	1010.1	0.0 ÷ 1.0
09/05/2023	02:40	00:10:00	24	0	3.31	16.12	11.1	86	1010	0.0 ÷ 1.0
09/05/2023	03:10	00:10:00	25.1	0	4.80	13.43	10.8	88	1009.7	0.0 ÷ 1.0
09/05/2023	03:20	00:10:00	24.6	0	5.01	15.42	10.8	87	1009.6	0.0 ÷ 1.0
09/05/2023	03:40	00:10:00	24.6	0	4.76	16.88	10.8	86	1009.6	0.0 ÷ 1.0
09/05/2023	05:30	00:07:28	51.5	0	5.16	37.25	11.7	82	1009.6	0.0 ÷ 1.0
09/05/2023	05:40	00:09:46	49.9	0	5.10	45.08	11.1	83	1009.5	0.0 ÷ 1.0
09/05/2023	05:50	00:09:55	48.9	0	5.06	39.99	10.6	85	1009.4	0.0 ÷ 1.0
08/05/2023	22:50	00:10:00	26.1	0.4	4.36	6.84	12.6	82	1010.9	0.0 ÷ 1.0
08/05/2023	23:00	00:08:37	37.5	0.4	4.93	9.76	12.5	81	1010.9	0.0 ÷ 1.0
09/05/2023	00:10	00:10:00	23.9	0.4	5.13	25.44	12.5	82	1010.6	0.0 ÷ 1.0
09/05/2023	01:00	00:09:20	25.1	0.4	4.43	28.09	11.8	83	1010.6	0.0 ÷ 1.0
09/05/2023	01:10	00:10:00	24.8	0.4	4.66	36.38	12	83	1010.6	0.0 ÷ 1.0
09/05/2023	01:20	00:10:00	24.4	0.4	4.18	36.54	12.2	82	1010.5	0.0 ÷ 1.0
09/05/2023	01:50	00:10:00	24.4	0.4	3.45	20.56	11.6	83	1010.4	0.0 ÷ 1.0
09/05/2023	02:00	00:09:14	24.7	0.4	3.31	7.72	11.6	84	1010.3	0.0 ÷ 1.0
09/05/2023	03:00	00:09:17	27.3	0.4	3.59	7.93	10.8	86	1009.8	0.0 ÷ 1.0
09/05/2023	03:30	00:09:42	25.9	0.4	4.62	12.56	11	88	1009.6	0.0 ÷ 1.0
09/05/2023	03:50	00:10:00	25.1	0.4	4.57	13.82	11.2	84	1009.8	0.0 ÷ 1.0
09/05/2023	04:00	00:09:08	27.5	0.4	4.08	7.82	11.4	83	1009.8	0.0 ÷ 1.0
09/05/2023	04:10	00:10:00	27.9	0.4	5.04	26.35	11.3	83	1009.6	0.0 ÷ 1.0
09/05/2023	04:20	00:10:00	29.3	0.4	5.03	22.26	11.3	83	1009.7	0.0 ÷ 1.0
09/05/2023	04:40	00:10:00	28.7	0.4	4.53	29.85	11.9	81	1009.7	0.0 ÷ 1.0
09/05/2023	04:30	00:09:41	26.3	0.9	5.42	28.82	11.7	81	1009.7	0.0 ÷ 1.0
09/05/2023	04:50	00:10:00	29.4	0.9	4.89	37.45	11.8	82	1009.6	0.0 ÷ 1.0
09/05/2023	05:10	00:10:00	37.4	0.9	4.99	30.86	11.7	82	1009.5	0.0 ÷ 1.0
09/05/2023	05:20	00:10:00	47.2	0.9	5.24	33.23	12.1	81	1009.5	0.0 ÷ 1.0
09/05/2023	05:00	00:09:05	33.5	1.3	5.02	34.82	11.7	84	1009.8	1.0 ÷ 2.0

TABELLA 4

Calcolo del Livello di rumore residuo medio per classi di velocità - Periodo Notturno

Data [gg/mm/aaaa]	L <sub>R</sub> [dB(A)]	v <sub>r</sub> [m/s]	V [m/s]	Classe di v <sub>r</sub> [m/s]
dal 08/05/2023 al 09/05/2023	39.1	0.2	4.6	0.0 ÷ 1.0
09/05/2023	33.5	1.3	5.0	1.0 ÷ 2.0
-	-	-	-	2.0 ÷ 3.0
-	-	-	-	3.0 ÷ 4.0
-	-	-	-	4.0 ÷ 5.0



## APPENDICE B

*Tabulati di calcolo: modello di propagazione del rumore di “taratura” relativo  
al Parco Eolico di Fri-El Albareto S.r.l.*

Project:

230523 Taratura modello\_Albareto

Licensed user:

MORI MANTOVANI ASSOCIATI SRL

VIA STRASBURGO 18A

IT-43123 PARMA

+390521239944

GIULIO BARTOLI / giulio@morimantovani.it

Calculated:

01/06/2023 16:00/3.6.366

## DECIBEL - Main Result

**Calculation:** Taratura modello ISO9613

**Noise calculation model:**

ISO 9613-2 General

**Wind speed (in hubheight):**

9.0 m/s - 11.0 m/s, step 1.0 m/s

**Ground attenuation:**

Fixed values, Agr: 0.0, Dc: 0.0

**Meteorological coefficient, C0:**

0.0 dB

**Type of demand in calculation:**

3: WTG noise is compared to ambient noise plus margin (UK, AT etc.)

**Noise values in calculation:**

All noise values are mean values (Lwa) (Normal)

**Pure tones:**

Ignore pure tones setting on WTG

**Height above ground level, when no value in NSA object:**

0.0 m; Don't allow override of model height with height from NSA object

**Uncertainty margin:**

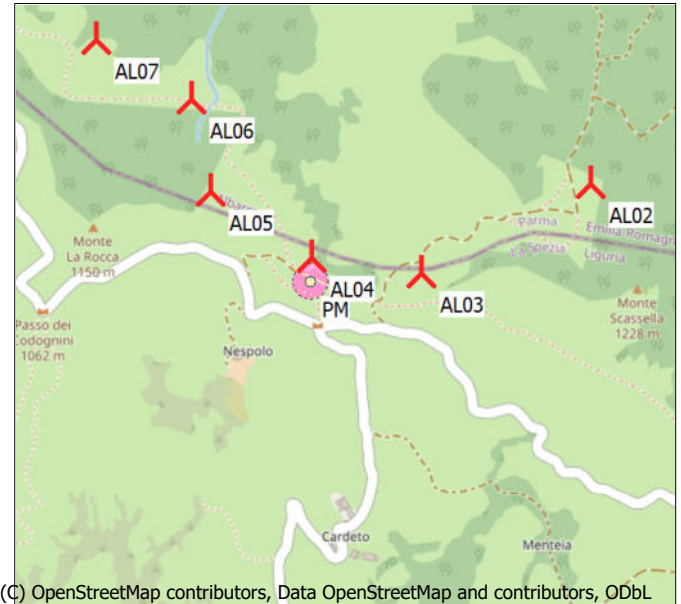
0.0 dB; Uncertainty margin in NSA has priority

**Deviation from "official" noise demands. Negative is more**

**restrictive, positive is less restrictive.:**

0.0 dB(A)

**Noise reflections according to ISO 9613-2 included**



Scale 1:20 000

New WTG

Noise sensitive area

All coordinates are in

Geo [deg]-WGS84

### WTGs

	Longitude	Latitude	Z	Row data/Description	WTG type			Power, rated	Rotor diameter	Hub height	Noise data		First wind speed [m/s]	LwaRef [dB(A)]	Last wind speed [m/s]	LwaRef [dB(A)]	Pure tones
					Valid	Manufact.	Type-generator				Creator	Name					
			[m]					[kW]	[m]	[m]							
AL02	9.653250° E	44.414472° N	1 143.0	AL02	Yes	VESTAS	V117-3.3 GridStreame-3 300	3 300	117.0	88.0	USER	Load Optimized Mode LO1	9.0	105.8	11.0	105.8	No
AL03	9.647611° E	44.412361° N	1 116.0	AL03	Yes	VESTAS	V117-3.3 GridStreame-3 300	3 300	117.0	88.0	USER	Load Optimized Mode LO1	9.0	105.8	11.0	105.8	No
AL04	9.643972° E	44.412722° N	1 090.0	AL04	Yes	VESTAS	V117-3.3 GridStreame-3 300	3 300	117.0	88.0	USER	Load Optimized Mode LO1	9.0	105.8	11.0	105.8	No
AL05	9.640611° E	44.414278° N	1 110.0	AL05	Yes	VESTAS	V117-3.3 GridStreame-3 300	3 300	117.0	88.0	USER	Load Optimized Mode LO1	9.0	105.8	11.0	105.8	No
AL06	9.640000° E	44.416500° N	1 081.0	AL06	Yes	VESTAS	V117-3.3 GridStreame-3 300	3 300	117.0	88.0	USER	Load Optimized Mode LO1	9.0	105.8	11.0	105.8	No
AL07	9.636806° E	44.417889° N	1 075.0	AL07	Yes	VESTAS	V117-3.3 GridStreame-3 300	3 300	117.0	88.0	USER	Load Optimized Mode LO1	9.0	105.8	11.0	105.8	No

## Calculation Results

### Sound level

**Noise sensitive area**

No.	Name	Longitude	Latitude	Z	Immission height	WTG noise	Predicted sound level
				[m]	[m]	[dB(A)]	Max exceedence [dB(A)]
PM	Punto di misura	9.643944° E	44.412126° N	1 105.0	0.0	55.5	---

### Distances (m)

WTG	PM
AL02	785
AL03	293
AL04	66
AL05	357
AL06	579
AL07	856

## DECIBEL - Detailed results

**Calculation:** Taratura modello ISO9613 **Noise calculation model:** ISO 9613-2 General

### Assumptions

Calculated L(DW) = LWA<sub>ref</sub> + K + Dc - (Adiv + Aatm + Agr + Abar + Amisc) - Cmet  
(when calculated with ground attenuation, then Dc = Domega)

LWA <sub>ref</sub> :	Sound pressure level at WTG
K:	Pure tone
Dc:	Directivity correction
Adiv:	the attenuation due to geometrical divergence
Aatm:	the attenuation due to atmospheric absorption
Agr:	the attenuation due to ground effect
Abar:	the attenuation due to a barrier
Amisc:	the attenuation due to miscellaneous other effects
Cmet:	Meteorological correction

## Calculation Results

### Noise sensitive area: PM Punto di misura

Wind speed: 9.0 m/s

#### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	LwA <sub>ref</sub> [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
AL02		785	795		<b>35.28</b>	105.8	0.00	69.01	1.51	0.00	0.00	0.00	70.52
AL02				63	<b>-26.20</b>	0.0			0.00	0.00			0.00
AL02				125	<b>-16.10</b>	0.0			0.00	0.00			0.00
AL02				250	<b>-8.60</b>	0.0			0.00	0.00			0.00
AL02				500	<b>-3.20</b>	0.0			0.00	0.00			0.00
AL02				1000	<b>0.00</b>	0.0			0.00	0.00			0.00
AL02				2000	<b>1.20</b>	0.0			0.00	0.00			0.00
AL02				4000	<b>1.00</b>	0.0			0.00	0.00			0.00
AL02				8000	<b>-1.10</b>	0.0			0.00	0.00			0.00
AL03		293	309		<b>44.40</b>	105.8	0.00	60.81	0.59	0.00	0.00	0.00	61.40
AL03				63	<b>-26.20</b>	0.0			0.00	0.00			0.00
AL03				125	<b>-16.10</b>	0.0			0.00	0.00			0.00
AL03				250	<b>-8.60</b>	0.0			0.00	0.00			0.00
AL03				500	<b>-3.20</b>	0.0			0.00	0.00			0.00
AL03				1000	<b>0.00</b>	0.0			0.00	0.00			0.00
AL03				2000	<b>1.20</b>	0.0			0.00	0.00			0.00
AL03				4000	<b>1.00</b>	0.0			0.00	0.00			0.00
AL03				8000	<b>-1.10</b>	0.0			0.00	0.00			0.00
AL04		66	99		<b>54.74</b>	105.8	0.00	50.88	0.19	0.00	0.00	0.00	51.06
AL04				63	<b>-26.20</b>	0.0			0.00	0.00			0.00
AL04				125	<b>-16.10</b>	0.0			0.00	0.00			0.00
AL04				250	<b>-8.60</b>	0.0			0.00	0.00			0.00
AL04				500	<b>-3.20</b>	0.0			0.00	0.00			0.00
AL04				1000	<b>0.00</b>	0.0			0.00	0.00			0.00
AL04				2000	<b>1.20</b>	0.0			0.00	0.00			0.00
AL04				4000	<b>1.00</b>	0.0			0.00	0.00			0.00
AL04				8000	<b>-1.10</b>	0.0			0.00	0.00			0.00
AL05		357	369		<b>42.76</b>	105.8	0.00	62.34	0.70	0.00	0.00	0.00	63.04
AL05				63	<b>-26.20</b>	0.0			0.00	0.00			0.00
AL05				125	<b>-16.10</b>	0.0			0.00	0.00			0.00
AL05				250	<b>-8.60</b>	0.0			0.00	0.00			0.00
AL05				500	<b>-3.20</b>	0.0			0.00	0.00			0.00
AL05				1000	<b>0.00</b>	0.0			0.00	0.00			0.00
AL05				2000	<b>1.20</b>	0.0			0.00	0.00			0.00
AL05				4000	<b>1.00</b>	0.0			0.00	0.00			0.00
AL05				8000	<b>-1.10</b>	0.0			0.00	0.00			0.00
AL06		579	582		<b>38.40</b>	105.8	0.00	66.30	1.11	0.00	0.00	0.00	67.40
AL06				63	<b>-26.20</b>	0.0			0.00	0.00			0.00
AL06				125	<b>-16.10</b>	0.0			0.00	0.00			0.00
AL06				250	<b>-8.60</b>	0.0			0.00	0.00			0.00
AL06				500	<b>-3.20</b>	0.0			0.00	0.00			0.00
AL06				1000	<b>0.00</b>	0.0			0.00	0.00			0.00
AL06				2000	<b>1.20</b>	0.0			0.00	0.00			0.00
AL06				4000	<b>1.00</b>	0.0			0.00	0.00			0.00

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## DECIBEL - Detailed results

**Calculation:** Taratura modello ISO9613 **Noise calculation model:** ISO 9613-2 General

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### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
AL06				8000	-1.10	0.0			0.00	0.00			0.00
AL07		856	858		34.50	105.8	0.00	69.67	1.63	0.00	0.00	0.00	71.30
AL07				63	-26.20	0.0			0.00	0.00			0.00
AL07				125	-16.10	0.0			0.00	0.00			0.00
AL07				250	-8.60	0.0			0.00	0.00			0.00
AL07				500	-3.20	0.0			0.00	0.00			0.00
AL07				1000	0.00	0.0			0.00	0.00			0.00
AL07				2000	1.20	0.0			0.00	0.00			0.00
AL07				4000	1.00	0.0			0.00	0.00			0.00
AL07				8000	-1.10	0.0			0.00	0.00			0.00
Sum					55.53								
Sum				63	7.78								
Sum				125	7.78								
Sum				250	7.78								
Sum				500	7.78								
Sum				1000	7.78								
Sum				2000	7.78								
Sum				4000	7.78								
Sum				8000	7.78								

Wind speed: 10.0 m/s

### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
AL02		785	795		35.28	105.8	0.00	69.01	1.51	0.00	0.00	0.00	70.52
AL02				63	-26.20	0.0			0.00	0.00			0.00
AL02				125	-16.10	0.0			0.00	0.00			0.00
AL02				250	-8.60	0.0			0.00	0.00			0.00
AL02				500	-3.20	0.0			0.00	0.00			0.00
AL02				1000	0.00	0.0			0.00	0.00			0.00
AL02				2000	1.20	0.0			0.00	0.00			0.00
AL02				4000	1.00	0.0			0.00	0.00			0.00
AL02				8000	-1.10	0.0			0.00	0.00			0.00
AL03		293	309		44.40	105.8	0.00	60.81	0.59	0.00	0.00	0.00	61.40
AL03				63	-26.20	0.0			0.00	0.00			0.00
AL03				125	-16.10	0.0			0.00	0.00			0.00
AL03				250	-8.60	0.0			0.00	0.00			0.00
AL03				500	-3.20	0.0			0.00	0.00			0.00
AL03				1000	0.00	0.0			0.00	0.00			0.00
AL03				2000	1.20	0.0			0.00	0.00			0.00
AL03				4000	1.00	0.0			0.00	0.00			0.00
AL03				8000	-1.10	0.0			0.00	0.00			0.00
AL04		66	99		54.74	105.8	0.00	50.88	0.19	0.00	0.00	0.00	51.06
AL04				63	-26.20	0.0			0.00	0.00			0.00
AL04				125	-16.10	0.0			0.00	0.00			0.00
AL04				250	-8.60	0.0			0.00	0.00			0.00
AL04				500	-3.20	0.0			0.00	0.00			0.00
AL04				1000	0.00	0.0			0.00	0.00			0.00
AL04				2000	1.20	0.0			0.00	0.00			0.00
AL04				4000	1.00	0.0			0.00	0.00			0.00
AL04				8000	-1.10	0.0			0.00	0.00			0.00
AL05		357	369		42.76	105.8	0.00	62.34	0.70	0.00	0.00	0.00	63.04
AL05				63	-26.20	0.0			0.00	0.00			0.00
AL05				125	-16.10	0.0			0.00	0.00			0.00
AL05				250	-8.60	0.0			0.00	0.00			0.00
AL05				500	-3.20	0.0			0.00	0.00			0.00
AL05				1000	0.00	0.0			0.00	0.00			0.00
AL05				2000	1.20	0.0			0.00	0.00			0.00
AL05				4000	1.00	0.0			0.00	0.00			0.00
AL05				8000	-1.10	0.0			0.00	0.00			0.00
AL06		579	582		38.40	105.8	0.00	66.30	1.11	0.00	0.00	0.00	67.40
AL06				63	-26.20	0.0			0.00	0.00			0.00
AL06				125	-16.10	0.0			0.00	0.00			0.00
AL06				250	-8.60	0.0			0.00	0.00			0.00

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## DECIBEL - Detailed results

**Calculation:** Taratura modello ISO9613 **Noise calculation model:** ISO 9613-2 General

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### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
AL06				500	-3.20	0.0			0.00	0.00			0.00
AL06				1000	0.00	0.0			0.00	0.00			0.00
AL06				2000	1.20	0.0			0.00	0.00			0.00
AL06				4000	1.00	0.0			0.00	0.00			0.00
AL06				8000	-1.10	0.0			0.00	0.00			0.00
AL07		856	858	63	34.50	105.8	0.00	69.67	1.63	0.00	0.00	0.00	71.30
AL07				125	-26.20	0.0			0.00	0.00			0.00
AL07				250	-16.10	0.0			0.00	0.00			0.00
AL07				500	-8.60	0.0			0.00	0.00			0.00
AL07				1000	-3.20	0.0			0.00	0.00			0.00
AL07				2000	0.00	0.0			0.00	0.00			0.00
AL07				4000	1.20	0.0			0.00	0.00			0.00
AL07				8000	1.00	0.0			0.00	0.00			0.00
AL07				8000	-1.10	0.0			0.00	0.00			0.00
Sum					55.53								
Sum				63	7.78								
Sum				125	7.78								
Sum				250	7.78								
Sum				500	7.78								
Sum				1000	7.78								
Sum				2000	7.78								
Sum				4000	7.78								
Sum				8000	7.78								

Wind speed: 11.0 m/s

### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
AL02		785	795	63	35.28	105.8	0.00	69.01	1.51	0.00	0.00	0.00	70.52
AL02				125	-26.20	0.0			0.00	0.00			0.00
AL02				250	-16.10	0.0			0.00	0.00			0.00
AL02				500	-8.60	0.0			0.00	0.00			0.00
AL02				1000	-3.20	0.0			0.00	0.00			0.00
AL02				2000	0.00	0.0			0.00	0.00			0.00
AL02				4000	1.20	0.0			0.00	0.00			0.00
AL02				8000	1.00	0.0			0.00	0.00			0.00
AL02				8000	-1.10	0.0			0.00	0.00			0.00
AL03		293	309	63	44.40	105.8	0.00	60.81	0.59	0.00	0.00	0.00	61.40
AL03				125	-26.20	0.0			0.00	0.00			0.00
AL03				250	-16.10	0.0			0.00	0.00			0.00
AL03				500	-8.60	0.0			0.00	0.00			0.00
AL03				1000	-3.20	0.0			0.00	0.00			0.00
AL03				2000	0.00	0.0			0.00	0.00			0.00
AL03				4000	1.20	0.0			0.00	0.00			0.00
AL03				8000	1.00	0.0			0.00	0.00			0.00
AL03				8000	-1.10	0.0			0.00	0.00			0.00
AL04		66	99	63	54.74	105.8	0.00	50.88	0.19	0.00	0.00	0.00	51.06
AL04				125	-26.20	0.0			0.00	0.00			0.00
AL04				250	-16.10	0.0			0.00	0.00			0.00
AL04				500	-8.60	0.0			0.00	0.00			0.00
AL04				1000	-3.20	0.0			0.00	0.00			0.00
AL04				2000	0.00	0.0			0.00	0.00			0.00
AL04				4000	1.20	0.0			0.00	0.00			0.00
AL04				8000	1.00	0.0			0.00	0.00			0.00
AL04				8000	-1.10	0.0			0.00	0.00			0.00
AL05		357	369	63	42.76	105.8	0.00	62.34	0.70	0.00	0.00	0.00	63.04
AL05				125	-26.20	0.0			0.00	0.00			0.00
AL05				250	-16.10	0.0			0.00	0.00			0.00
AL05				500	-8.60	0.0			0.00	0.00			0.00
AL05				1000	-3.20	0.0			0.00	0.00			0.00
AL05				2000	0.00	0.0			0.00	0.00			0.00
AL05				4000	1.20	0.0			0.00	0.00			0.00
AL05				8000	1.00	0.0			0.00	0.00			0.00
AL05				8000	-1.10	0.0			0.00	0.00			0.00

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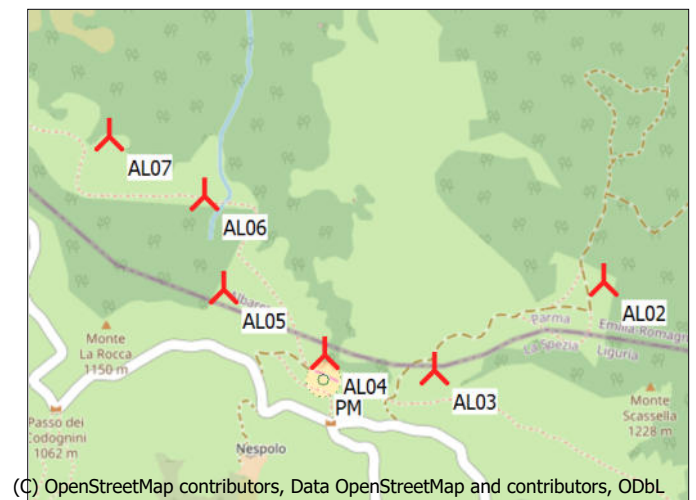
## DECIBEL - Detailed results

**Calculation:** Taratura modello ISO9613 **Noise calculation model:** ISO 9613-2 General

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### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
AL06		579	582		<b>38.40</b>	105.8	0.00	66.30	1.11	0.00	0.00	0.00	67.40
AL06				63	<b>-26.20</b>	0.0			0.00	0.00			0.00
AL06				125	<b>-16.10</b>	0.0			0.00	0.00			0.00
AL06				250	<b>-8.60</b>	0.0			0.00	0.00			0.00
AL06				500	<b>-3.20</b>	0.0			0.00	0.00			0.00
AL06				1000	<b>0.00</b>	0.0			0.00	0.00			0.00
AL06				2000	<b>1.20</b>	0.0			0.00	0.00			0.00
AL06				4000	<b>1.00</b>	0.0			0.00	0.00			0.00
AL06				8000	<b>-1.10</b>	0.0			0.00	0.00			0.00
AL07		856	858		<b>34.50</b>	105.8	0.00	69.67	1.63	0.00	0.00	0.00	71.30
AL07				63	<b>-26.20</b>	0.0			0.00	0.00			0.00
AL07				125	<b>-16.10</b>	0.0			0.00	0.00			0.00
AL07				250	<b>-8.60</b>	0.0			0.00	0.00			0.00
AL07				500	<b>-3.20</b>	0.0			0.00	0.00			0.00
AL07				1000	<b>0.00</b>	0.0			0.00	0.00			0.00
AL07				2000	<b>1.20</b>	0.0			0.00	0.00			0.00
AL07				4000	<b>1.00</b>	0.0			0.00	0.00			0.00
AL07				8000	<b>-1.10</b>	0.0			0.00	0.00			0.00
Sum					<b>55.53</b>								
Sum				63	<b>7.78</b>								
Sum				125	<b>7.78</b>								
Sum				250	<b>7.78</b>								
Sum				500	<b>7.78</b>								
Sum				1000	<b>7.78</b>								
Sum				2000	<b>7.78</b>								
Sum				4000	<b>7.78</b>								
Sum				8000	<b>7.78</b>								



Scale 1:20 000  
 New WTG  
 Noise sensitive area

Project:

**230523 Taratura modello\_Albareto**

Licensed user:

**MORI MANTOVANI ASSOCIATI SRL**

VIA STRASBURGO 18A

IT-43123 PARMA

+390521239944

GIULIO BARTOLI / giulio@morimantovani.it

Calculated:

01/06/2023 16:00/3.6.366

## DECIBEL - Assumptions for noise calculation

**Calculation:** Taratura modello ISO9613

**Noise calculation model:**

ISO 9613-2 General

**Wind speed (in hubheight):**

9.0 m/s - 11.0 m/s, step 1.0 m/s

**Ground attenuation:**

Fixed values, Agr: 0.0, Dc: 0.0

**Meteorological coefficient, C0:**

0.0 dB

**Type of demand in calculation:**

3: WTG noise is compared to ambient noise plus margin (UK, AT etc.)

**Noise values in calculation:**

All noise values are mean values (Lwa) (Normal)

**Pure tones:**

Ignore pure tones setting on WTG

**Height above ground level, when no value in NSA object:**

0.0 m; Don't allow override of model height with height from NSA object

**Uncertainty margin:**

0.0 dB; Uncertainty margin in NSA has priority

**Deviation from "official" noise demands. Negative is more restrictive, positive is less restrictive.:**

0.0 dB(A)

**Noise reflections according to ISO 9613-2 included**

**Octave data not used**

Frequency independent air absorption: 1.9 dB/km

All coordinates are in

Geo [deg]-WGS84

**WTG:** VESTAS V117-3.3 GridStreame 3300 117.0 !O!

**Noise:** Load Optimized Mode LO1

Source	Source/Date	Creator	Edited
	23/05/2023	USER	23/05/2023 17:26

Status	Wind speed [m/s]	LwA,ref [dB(A)]	Pure tones
From Windcat	9.0	105.8	No
From Windcat	10.0	105.8	No
From Windcat	11.0	105.8	No

**Noise sensitive area: PM Punto di misura**

**No noise demand**

**Distance demand:** 20\*RD

**No obstacles used for reflection**

Project:

**230523 Taratura modello\_Albareto**

Licensed user:

**MORI MANTOVANI ASSOCIATI SRL**

VIA STRASBURGO 18A

IT-43123 PARMA

+390521239944

GIULIO BARTOLI / giulio@morimantovani.it

Calculated:

01/06/2023 16:00/3.6.366

## **DECIBEL - Reflections details**

**Calculation:** Taratura modello ISO9613

**No obstacles used for reflection**

Project:

230523 Taratura modello\_Albareto

Licensed user:

MORI MANTOVANI ASSOCIATI SRL

VIA STRASBURGO 18A

IT-43123 PARMA

+390521239944

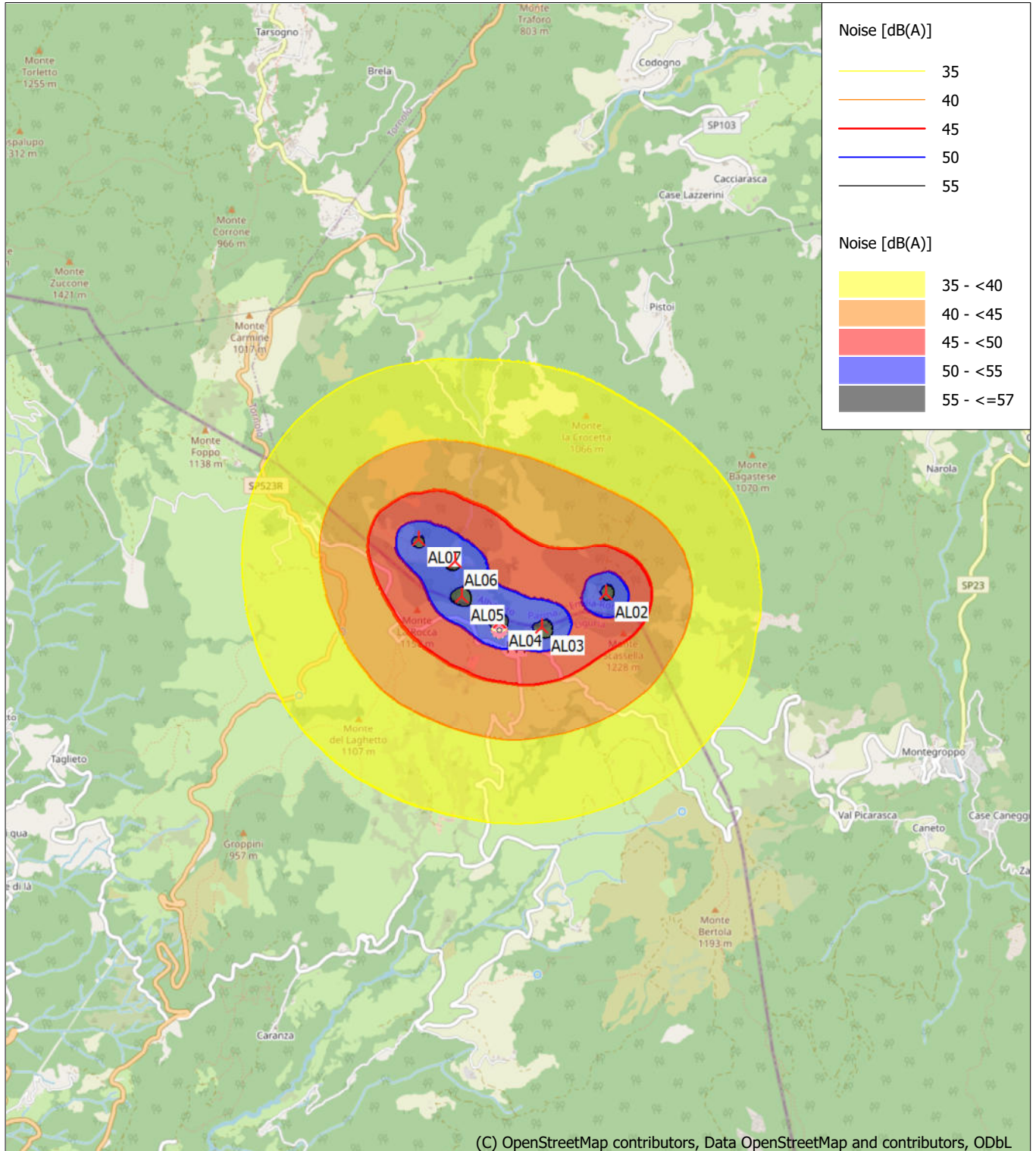
GIULIO BARTOLI / giulio@morimantovani.it

Calculated:

01/06/2023 16:00/3.6.366

## DECIBEL - Map 10.0 m/s

Calculation: Taratura modello ISO9613



New WTG

Noise sensitive area

Noise calculation model: ISO 9613-2 General. Wind speed: 10.0 m/s

Height above sea level from active line object



## APPENDICE C

*Tabulati di calcolo: modello di propagazione del rumore in fase di esercizio  
dell'impianto in progetto*



Project:

230515 Modello Borgo Taro per acustica

Licensed user:

MORI MANTOVANI ASSOCIATI SRL

VIA STRASBURGO 18A

IT-43123 PARMA

+390521239944

GIULIO BARTOLI / giulio@morimantovani.it

Calculated:

02/06/2023 12:50/3.6.366

## DECIBEL - Main Result

**Calculation:** DIURNO

**Noise calculation model:**

ISO 9613-2 General

**Wind speed (in hubheight):**

3.0 m/s - 10.0 m/s, step 1.0 m/s

**Ground attenuation:**

General, Ground factor: 1.0

**Meteorological coefficient, C0:**

0.0 dB

**Type of demand in calculation:**

1: WTG noise is compared to demand (DK, DE, SE, NL etc.)

**Noise values in calculation:**

All noise values are mean values (Lwa) (Normal)

**Pure tones:**

Fixed penalty added to source noise of WTGs with pure tones

WTG catalogue

**Height above ground level, when no value in NSA object:**

0.0 m; Don't allow override of model height with height from NSA object

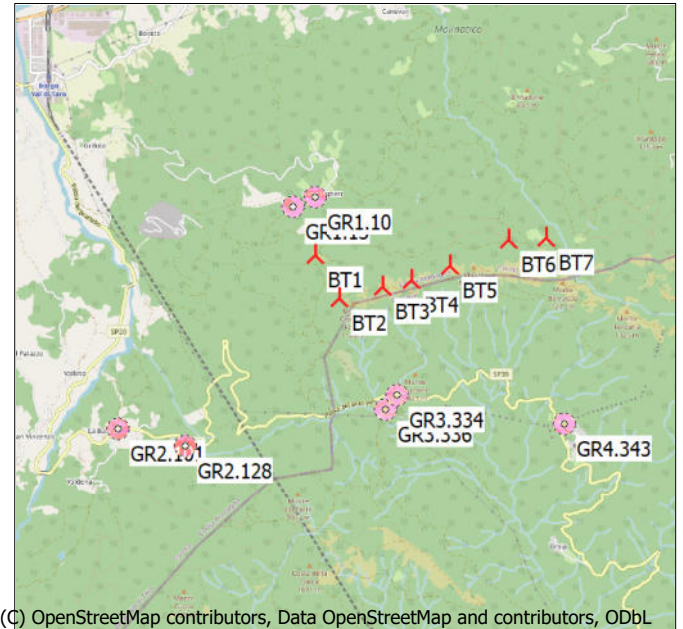
**Uncertainty margin:**

2.0 dB; Uncertainty margin in NSA has priority

**Deviation from "official" noise demands. Negative is more restrictive, positive is less restrictive.:**

0.0 dB(A)

**Noise reflections according to ISO 9613-2 included**



(C) OpenStreetMap contributors, Data OpenStreetMap and contributors, ODbL

Scale 1:75 000

▲ New WTG

■ Noise sensitive area

All coordinates are in

Geo [deg]-WGS84

### WTGs

	Longitude	Latitude	Z	Row data/Description	WTG type			Noise data					First wind speed [m/s]	LwaRef [dB(A)]	Last wind speed [m/s]	LwaRef [dB(A)]
					Valid	Manufact.	Type-generator	Power, rated	Rotor diameter	Hub height	Creator	Name				
			[m]					[kW]	[m]	[m]						
BT1	9.814784° E	44.470627° N	1 053.7	VESTAS V136-4.2 4200 136.0...	Yes	VESTAS	V136-4.2-4 200	4 200	136.0	112.0	USER	Level V136-4.2MW P01-05	3.0	93.2	10.0	106.9
BT2	9.817747° E	44.466744° N	1 160.0	VESTAS V136-4.2 4200 136.0...	Yes	VESTAS	V136-4.2-4 200	4 200	136.0	112.0	USER	Level V136-4.2MW P01-05	3.0	93.2	10.0	106.9
BT3	9.823149° E	44.467728° N	1 127.0	VESTAS V136-4.2 4200 136.0...	Yes	VESTAS	V136-4.2-4 200	4 200	136.0	112.0	USER	Level V136-4.2MW P01-05	3.0	93.2	10.0	106.9
BT4	9.826883° E	44.468394° N	1 118.5	VESTAS V136-4.2 4200 136.0...	Yes	VESTAS	V136-4.2-4 200	4 200	136.0	112.0	USER	Level V136-4.2MW P01-05	3.0	93.2	10.0	106.9
BT5	9.831671° E	44.469622° N	1 190.0	VESTAS V136-4.2 4200 136.0...	Yes	VESTAS	V136-4.2-4 200	4 200	136.0	112.0	USER	Level V136-4.2MW P01-05	3.0	93.2	10.0	106.9
BT6	9.838952° E	44.471922° N	1 146.5	VESTAS V136-4.2 4200 136.0...	Yes	VESTAS	V136-4.2-4 200	4 200	136.0	112.0	USER	Level V136-4.2MW P01-05	3.0	93.2	10.0	106.9
BT7	9.843650° E	44.472113° N	1 150.0	VESTAS V136-4.2 4200 136.0...	Yes	VESTAS	V136-4.2-4 200	4 200	136.0	112.0	USER	Level V136-4.2MW P01-05	3.0	93.2	10.0	106.9

## Calculation Results

### Sound level

**Noise sensitive area**

No.	Name	Longitude	Latitude	Z	Immission height	Demands		Sound level		Uncertainty margin [dB]	WTG+Uncertainty margin [dB(A)]
						Min Noise	Max From WTGs				
				[m]	[m]	[dB(A)]	[dB(A)]				
GR1.10	Case Vighini	9.814710° E	44.475740° N	896.0	0.0	50.0	34.0		2.0		36.0
GR1.13	Case Vighini	9.812090° E	44.474900° N	890.0	0.0	50.0	34.2		2.0		36.2
GR2.101	Valdena	9.790090° E	44.455100° N	662.0	0.0	50.0	20.7		2.0		22.7
GR2.128	Valdena	9.798640° E	44.453540° N	711.0	0.0	50.0	22.5		2.0		24.5
GR3.334	Passo del Brattello	9.825040° E	44.458110° N	961.0	0.0	50.0	30.9		2.0		32.9
GR3.336	Passo del Brattello	9.823620° E	44.456820° N	966.0	0.0	50.0	29.8		2.0		31.8
GR4.343	Bratto	9.845980° E	44.455460° N	886.0	0.0	50.0	25.4		2.0		27.4

### Distances (m)

WTG							
NSA	BT1	BT2	BT3	BT4	BT5	BT6	BT7
GR1.10	568	1028	1115	1266	1511	1974	2337
GR1.13	521	1012	1187	1381	1664	2162	2529
GR2.101	2614	2552	2981	3278	3680	4313	4661
GR2.128	2292	2112	2507	2788	3177	3802	4133
GR3.334	1612	1121	1079	1152	1383	1892	2147
GR3.336	1687	1197	1212	1312	1560	2074	2329
GR4.343	3000	2572	2271	2091	1942	1912	1859

## DECIBEL - Detailed results

**Calculation:** DIURNO **Noise calculation model:** ISO 9613-2 General

### Assumptions

Calculated L(DW) = LWA,ref + K + Dc - (Adiv + Aatm + Agr + Abar + Amisc) - Cmet  
(when calculated with ground attenuation, then Dc = Domega)

LWA,ref:	Sound pressure level at WTG
K:	Pure tone
Dc:	Directivity correction
Adiv:	the attenuation due to geometrical divergence
Aatm:	the attenuation due to atmospheric absorption
Agr:	the attenuation due to ground effect
Abar:	the attenuation due to a barrier
Amisc:	the attenuation due to miscellaneous other effects
Cmet:	Meteorological correction

## Calculation Results

### Noise sensitive area: GR1.10 Case Vighini

Wind speed: 3.0 m/s

#### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LWA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT1		568	629		19.93	2.00	93.2	0.00	66.97	-	-	0.00	0.00	-
BT1				63	6.49		70.5			0.06	-3.00			64.03
BT1				125	8.61		79.4			0.25	3.54			70.76
BT1				250	9.01		85.2			0.63	8.60			76.20
BT1				500	5.92		88.1			1.19	14.00			82.16
BT1				1000	13.70		88.0			2.33	5.00			74.30
BT1				2000	11.76		84.8			6.10	0.00			73.07
BT1				4000	-8.93		78.7			20.62	0.00			87.59
BT1				8000	-71.08		69.5			73.57	0.00			140.54
BT2	1 028		1 095		13.22	2.00	93.2	0.00	71.79	-	-	0.00	0.00	-
BT2				63	1.62		70.5			0.11	-3.00			68.90
BT2				125	1.60		79.4			0.44	5.55			77.78
BT2				250	3.73		85.2			1.09	8.60			81.48
BT2				500	0.22		88.1			2.08	14.00			87.87
BT2				1000	7.16		88.0			4.05	5.00			80.84
BT2				2000	2.43		84.8			10.62	0.00			82.40
BT2				4000	-29.03		78.7			35.91	0.00			107.69
BT2				8000	-130.41		69.5			128.08	0.00			199.86
BT3	1 115		1 166		12.44	2.00	93.2	0.00	72.34	-	-	0.00	0.00	-
BT3				63	1.07		70.5			0.12	-3.00			69.45
BT3				125	0.90		79.4			0.47	5.67			78.48
BT3				250	3.10		85.2			1.17	8.60			82.10
BT3				500	-0.47		88.1			2.22	14.00			88.55
BT3				1000	6.34		88.0			4.32	5.00			81.65
BT3				2000	1.18		84.8			11.31	0.00			83.65
BT3				4000	-31.93		78.7			38.26	0.00			110.59
BT3				8000	-139.34		69.5			136.46	0.00			208.80
BT4	1 266		1 310		11.01	2.00	93.2	0.00	73.34	-	-	0.00	0.00	-
BT4				63	0.04		70.5			0.13	-3.00			70.47
BT4				125	-0.28		79.4			0.52	5.79			79.65
BT4				250	1.95		85.2			1.31	8.60			83.25
BT4				500	-1.74		88.1			2.49	14.00			89.83
BT4				1000	4.81		88.0			4.85	5.00			83.19
BT4				2000	-1.22		84.8			12.70	0.00			86.05
BT4				4000	-37.64		78.7			42.96	0.00			116.30
BT4				8000	-157.12		69.5			153.23	0.00			226.58
BT5	1 511		1 564		8.81	2.00	93.2	0.00	74.89	-	-	0.00	0.00	-
BT5				63	-1.52		70.5			0.16	-3.00			72.04
BT5				125	-1.98		79.4			0.63	5.84			81.35
BT5				250	0.16		85.2			1.56	8.60			85.05
BT5				500	-3.77		88.1			2.97	14.00			91.86
BT5				1000	2.32		88.0			5.79	5.00			85.67
BT5				2000	-5.23		84.8			15.17	0.00			90.06

To be continued on next page...

## DECIBEL - Detailed results

**Calculation:** DIURNO **Noise calculation model:** ISO 9613-2 General

...continued from previous page

### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT5				4000	-47.53		78.7			51.31	0.00			126.19
BT5				8000	-188.44		69.5			183.01	0.00			257.90
BT6		1 974	2 007		5.71	2.00	93.2	0.00	77.05	-	-	0.00	0.00	-
BT6				63	-3.73		70.5			0.20	-3.00			74.25
BT6				125	-4.33		79.4			0.80	5.85			83.70
BT6				250	-2.45		85.2			2.01	8.60			87.66
BT6				500	-6.78		88.1			3.81	14.00			94.87
BT6				1000	-1.48		88.0			7.43	5.00			89.48
BT6				2000	-11.69		84.8			19.47	0.00			96.52
BT6				4000	-64.23		78.7			65.84	0.00			142.89
BT6				8000	-242.45		69.5			234.85	0.00			311.90
BT7		2 337	2 365		3.66	2.00	93.2	0.00	78.48	-	-	0.00	0.00	-
BT7				63	-5.20		70.5			0.24	-3.00			75.71
BT7				125	-5.90		79.4			0.95	5.85			85.27
BT7				250	-4.24		85.2			2.37	8.60			89.44
BT7				500	-8.88		88.1			4.49	14.00			96.97
BT7				1000	-4.23		88.0			8.75	5.00			92.23
BT7				2000	-16.59		84.8			22.94	0.00			101.42
BT7				4000	-77.40		78.7			77.58	0.00			156.06
BT7				8000	-285.76		69.5			276.74	0.00			355.22
Sum					22.13									
Sum				63	38.03									
Sum				125	28.94									
Sum				250	22.62									
Sum				500	13.83									
Sum				1000	17.88									
Sum				2000	13.63									
Sum				4000	-7.86									
Sum				8000	-67.98									

- Data undefined due to calculation with octave data

Wind speed: 4.0 m/s

### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT1		568	629		20.34	2.00	93.6	0.00	66.97	-	-	0.00	0.00	-
BT1				63	7.26		71.3			0.06	-3.00			64.03
BT1				125	9.31		80.1			0.25	3.54			70.76
BT1				250	9.61		85.8			0.63	8.60			76.20
BT1				500	6.42		88.6			1.19	14.00			82.16
BT1				1000	14.01		88.3			2.33	5.00			74.30
BT1				2000	11.91		85.0			6.10	0.00			73.07
BT1				4000	-8.87		78.7			20.62	0.00			87.59
BT1				8000	-71.13		69.4			73.57	0.00			140.54
BT2		1 028	1 095		13.68	2.00	93.6	0.00	71.79	-	-	0.00	0.00	-
BT2				63	2.40		71.3			0.11	-3.00			68.90
BT2				125	2.30		80.1			0.44	5.55			77.78
BT2				250	4.33		85.8			1.09	8.60			81.48
BT2				500	0.72		88.6			2.08	14.00			87.87
BT2				1000	7.47		88.3			4.05	5.00			80.84
BT2				2000	2.57		85.0			10.62	0.00			82.40
BT2				4000	-28.96		78.7			35.91	0.00			107.69
BT2				8000	-130.46		69.4			128.08	0.00			199.86
BT3		1 115	1 166		12.90	2.00	93.6	0.00	72.34	-	-	0.00	0.00	-
BT3				63	1.84		71.3			0.12	-3.00			69.45
BT3				125	1.60		80.1			0.47	5.67			78.48
BT3				250	3.70		85.8			1.17	8.60			82.10
BT3				500	0.03		88.6			2.22	14.00			88.55
BT3				1000	6.65		88.3			4.32	5.00			81.65
BT3				2000	1.33		85.0			11.31	0.00			83.65
BT3				4000	-31.86		78.7			38.26	0.00			110.59
BT3				8000	-139.39		69.4			136.46	0.00			208.80
BT4		1 266	1 310		11.49	2.00	93.6	0.00	73.34	-	-	0.00	0.00	-

To be continued on next page...

## DECIBEL - Detailed results

**Calculation:** DIURNO **Noise calculation model:** ISO 9613-2 General

...continued from previous page

### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT4				63	0.82		71.3			0.13	-3.00			70.47
BT4				125	0.42		80.1			0.52	5.79			79.65
BT4				250	2.55		85.8			1.31	8.60			83.25
BT4				500	-1.24		88.6			2.49	14.00			89.83
BT4				1000	5.11		88.3			4.85	5.00			83.19
BT4				2000	-1.07		85.0			12.70	0.00			86.05
BT4				4000	-37.57		78.7			42.96	0.00			116.30
BT4				8000	-157.17		69.4			153.23	0.00			226.58
BT5		1 511	1 564		9.32	2.00	93.6	0.00	74.89	-	-	0.00	0.00	-
BT5				63	-0.75		71.3			0.16	-3.00			72.04
BT5				125	-1.28		80.1			0.63	5.84			81.35
BT5				250	0.76		85.8			1.56	8.60			85.05
BT5				500	-3.27		88.6			2.97	14.00			91.86
BT5				1000	2.63		88.3			5.79	5.00			85.67
BT5				2000	-5.08		85.0			15.17	0.00			90.06
BT5				4000	-47.46		78.7			51.31	0.00			126.19
BT5				8000	-188.49		69.4			183.01	0.00			257.90
BT6		1 974	2 007		6.25	2.00	93.6	0.00	77.05	-	-	0.00	0.00	-
BT6				63	-2.96		71.3			0.20	-3.00			74.25
BT6				125	-3.63		80.1			0.80	5.85			83.70
BT6				250	-1.85		85.8			2.01	8.60			87.66
BT6				500	-6.28		88.6			3.81	14.00			94.87
BT6				1000	-1.18		88.3			7.43	5.00			89.48
BT6				2000	-11.55		85.0			19.47	0.00			96.52
BT6				4000	-64.16		78.7			65.84	0.00			142.89
BT6				8000	-242.49		69.4			234.85	0.00			311.90
BT7		2 337	2 365		4.22	2.00	93.6	0.00	78.48	-	-	0.00	0.00	-
BT7				63	-4.42		71.3			0.24	-3.00			75.71
BT7				125	-5.20		80.1			0.95	5.85			85.27
BT7				250	-3.64		85.8			2.37	8.60			89.44
BT7				500	-8.38		88.6			4.49	14.00			96.97
BT7				1000	-3.93		88.3			8.75	5.00			92.23
BT7				2000	-16.45		85.0			22.94	0.00			101.42
BT7				4000	-77.33		78.7			77.58	0.00			156.06
BT7				8000	-285.81		69.4			276.74	0.00			355.22
Sum					22.56									
Sum				63	38.81									
Sum				125	29.64									
Sum				250	23.22									
Sum				500	14.33									
Sum				1000	18.19									
Sum				2000	13.78									
Sum				4000	-7.80									
Sum				8000	-68.03									

- Data undefined due to calculation with octave data

Wind speed: 5.0 m/s

### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT1		568	629		23.25	2.00	96.5	0.00	66.97	-	-	0.00	0.00	-
BT1				63	10.56		74.6			0.06	-3.00			64.03
BT1				125	12.54		83.3			0.25	3.54			70.76
BT1				250	12.73		88.9			0.63	8.60			76.20
BT1				500	9.39		91.6			1.19	14.00			82.16
BT1				1000	16.81		91.1			2.33	5.00			74.30
BT1				2000	14.55		87.6			6.10	0.00			73.07
BT1				4000	-6.46		81.1			20.62	0.00			87.59
BT1				8000	-69.04		71.5			73.57	0.00			140.54
BT2		1 028	1 095		16.64	2.00	96.5	0.00	71.79	-	-	0.00	0.00	-
BT2				63	5.70		74.6			0.11	-3.00			68.90
BT2				125	5.53		83.3			0.44	5.55			77.78
BT2				250	7.45		88.9			1.09	8.60			81.48

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## DECIBEL - Detailed results

**Calculation:** DIURNO **Noise calculation model:** ISO 9613-2 General

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### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT2				500	3.69		91.6			2.08	14.00			87.87
BT2				1000	10.27		91.1			4.05	5.00			80.84
BT2				2000	5.22		87.6			10.62	0.00			82.40
BT2				4000	-26.55		81.1			35.91	0.00			107.69
BT2				8000	-128.37		71.5			128.08	0.00			199.86
BT3	1 115	1 166			15.88	2.00	96.5	0.00	72.34	-	-	0.00	0.00	-
BT3				63	5.14		74.6			0.12	-3.00			69.45
BT3				125	4.83		83.3			0.47	5.67			78.48
BT3				250	6.83		88.9			1.17	8.60			82.10
BT3				500	3.00		91.6			2.22	14.00			88.55
BT3				1000	9.45		91.1			4.32	5.00			81.65
BT3				2000	3.97		87.6			11.31	0.00			83.65
BT3				4000	-29.45		81.1			38.26	0.00			110.59
BT3				8000	-137.30		71.5			136.46	0.00			208.80
BT4	1 266	1 310			14.48	2.00	96.5	0.00	73.34	-	-	0.00	0.00	-
BT4				63	4.12		74.6			0.13	-3.00			70.47
BT4				125	3.65		83.3			0.52	5.79			79.65
BT4				250	5.68		88.9			1.31	8.60			83.25
BT4				500	1.72		91.6			2.49	14.00			89.83
BT4				1000	7.91		91.1			4.85	5.00			83.19
BT4				2000	1.58		87.6			12.70	0.00			86.05
BT4				4000	-35.16		81.1			42.96	0.00			116.30
BT4				8000	-155.08		71.5			153.23	0.00			226.58
BT5	1 511	1 564			12.34	2.00	96.5	0.00	74.89	-	-	0.00	0.00	-
BT5				63	2.55		74.6			0.16	-3.00			72.04
BT5				125	1.95		83.3			0.63	5.84			81.35
BT5				250	3.88		88.9			1.56	8.60			85.05
BT5				500	-0.31		91.6			2.97	14.00			91.86
BT5				1000	5.43		91.1			5.79	5.00			85.67
BT5				2000	-2.44		87.6			15.17	0.00			90.06
BT5				4000	-45.05		81.1			51.31	0.00			126.19
BT5				8000	-186.40		71.5			183.01	0.00			257.90
BT6	1 974	2 007			9.31	2.00	96.5	0.00	77.05	-	-	0.00	0.00	-
BT6				63	0.34		74.6			0.20	-3.00			74.25
BT6				125	-0.40		83.3			0.80	5.85			83.70
BT6				250	1.27		88.9			2.01	8.60			87.66
BT6				500	-3.31		91.6			3.81	14.00			94.87
BT6				1000	1.62		91.1			7.43	5.00			89.48
BT6				2000	-8.90		87.6			19.47	0.00			96.52
BT6				4000	-61.75		81.1			65.84	0.00			142.89
BT6				8000	-240.41		71.5			234.85	0.00			311.90
BT7	2 337	2 365			7.31	2.00	96.5	0.00	78.48	-	-	0.00	0.00	-
BT7				63	-1.12		74.6			0.24	-3.00			75.71
BT7				125	-1.97		83.3			0.95	5.85			85.27
BT7				250	-0.51		88.9			2.37	8.60			89.44
BT7				500	-5.42		91.6			4.49	14.00			96.97
BT7				1000	-1.13		91.1			8.75	5.00			92.23
BT7				2000	-13.80		87.6			22.94	0.00			101.42
BT7				4000	-74.92		81.1			77.58	0.00			156.06
BT7				8000	-283.72		71.5			276.74	0.00			355.22
Sum					25.51									
Sum				63	42.11									
Sum				125	32.87									
Sum				250	26.34									
Sum				500	17.29									
Sum				1000	20.99									
Sum				2000	16.43									
Sum				4000	-5.39									
Sum				8000	-65.94									

- Data undefined due to calculation with octave data

## DECIBEL - Detailed results

**Calculation:** DIURNO **Noise calculation model:** ISO 9613-2 General

Wind speed: 6.0 m/s

### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT1		568	629		<b>26.76</b>	2.00	100.0	0.00	66.97	-	-	0.00	0.00	-
BT1				63	<b>14.20</b>		78.2			0.06	-3.00			64.03
BT1				125	<b>16.16</b>		86.9			0.25	3.54			70.76
BT1				250	<b>16.33</b>		92.5			0.63	8.60			76.20
BT1				500	<b>12.92</b>		95.1			1.19	14.00			82.16
BT1				1000	<b>20.28</b>		94.6			2.33	5.00			74.30
BT1				2000	<b>17.93</b>		91.0			6.10	0.00			73.07
BT1				4000	<b>-3.26</b>		84.3			20.62	0.00			87.59
BT1				8000	<b>-65.98</b>		74.6			73.57	0.00			140.54
BT2	1 028		1 095		<b>20.18</b>	2.00	100.0	0.00	71.79	-	-	0.00	0.00	-
BT2				63	<b>9.33</b>		78.2			0.11	-3.00			68.90
BT2				125	<b>9.14</b>		86.9			0.44	5.55			77.78
BT2				250	<b>11.05</b>		92.5			1.09	8.60			81.48
BT2				500	<b>7.22</b>		95.1			2.08	14.00			87.87
BT2				1000	<b>13.74</b>		94.6			4.05	5.00			80.84
BT2				2000	<b>8.60</b>		91.0			10.62	0.00			82.40
BT2				4000	<b>-23.35</b>		84.3			35.91	0.00			107.69
BT2				8000	<b>-125.31</b>		74.6			128.08	0.00			199.86
BT3	1 115		1 166		<b>19.41</b>	2.00	100.0	0.00	72.34	-	-	0.00	0.00	-
BT3				63	<b>8.78</b>		78.2			0.12	-3.00			69.45
BT3				125	<b>8.45</b>		86.9			0.47	5.67			78.48
BT3				250	<b>10.43</b>		92.5			1.17	8.60			82.10
BT3				500	<b>6.53</b>		95.1			2.22	14.00			88.55
BT3				1000	<b>12.92</b>		94.6			4.32	5.00			81.65
BT3				2000	<b>7.35</b>		91.0			11.31	0.00			83.65
BT3				4000	<b>-26.25</b>		84.3			38.26	0.00			110.59
BT3				8000	<b>-134.24</b>		74.6			136.46	0.00			208.80
BT4	1 266		1 310		<b>18.02</b>	2.00	100.0	0.00	73.34	-	-	0.00	0.00	-
BT4				63	<b>7.76</b>		78.2			0.13	-3.00			70.47
BT4				125	<b>7.27</b>		86.9			0.52	5.79			79.65
BT4				250	<b>9.28</b>		92.5			1.31	8.60			83.25
BT4				500	<b>5.25</b>		95.1			2.49	14.00			89.83
BT4				1000	<b>11.39</b>		94.6			4.85	5.00			83.19
BT4				2000	<b>4.95</b>		91.0			12.70	0.00			86.05
BT4				4000	<b>-31.96</b>		84.3			42.96	0.00			116.30
BT4				8000	<b>-152.02</b>		74.6			153.23	0.00			226.58
BT5	1 511		1 564		<b>15.89</b>	2.00	100.0	0.00	74.89	-	-	0.00	0.00	-
BT5				63	<b>6.19</b>		78.2			0.16	-3.00			72.04
BT5				125	<b>5.57</b>		86.9			0.63	5.84			81.35
BT5				250	<b>7.48</b>		92.5			1.56	8.60			85.05
BT5				500	<b>3.22</b>		95.1			2.97	14.00			91.86
BT5				1000	<b>8.90</b>		94.6			5.79	5.00			85.67
BT5				2000	<b>0.94</b>		91.0			15.17	0.00			90.06
BT5				4000	<b>-41.85</b>		84.3			51.31	0.00			126.19
BT5				8000	<b>-183.34</b>		74.6			183.01	0.00			257.90
BT6	1 974		2 007		<b>12.87</b>	2.00	100.0	0.00	77.05	-	-	0.00	0.00	-
BT6				63	<b>3.98</b>		78.2			0.20	-3.00			74.25
BT6				125	<b>3.22</b>		86.9			0.80	5.85			83.70
BT6				250	<b>4.87</b>		92.5			2.01	8.60			87.66
BT6				500	<b>0.22</b>		95.1			3.81	14.00			94.87
BT6				1000	<b>5.10</b>		94.6			7.43	5.00			89.48
BT6				2000	<b>-5.52</b>		91.0			19.47	0.00			96.52
BT6				4000	<b>-58.55</b>		84.3			65.84	0.00			142.89
BT6				8000	<b>-237.34</b>		74.6			234.85	0.00			311.90
BT7	2 337		2 365		<b>10.89</b>	2.00	100.0	0.00	78.48	-	-	0.00	0.00	-
BT7				63	<b>2.52</b>		78.2			0.24	-3.00			75.71
BT7				125	<b>1.65</b>		86.9			0.95	5.85			85.27
BT7				250	<b>3.09</b>		92.5			2.37	8.60			89.44
BT7				500	<b>-1.89</b>		95.1			4.49	14.00			96.97
BT7				1000	<b>2.35</b>		94.6			8.75	5.00			92.23
BT7				2000	<b>-10.42</b>		91.0			22.94	0.00			101.42
BT7				4000	<b>-71.72</b>		84.3			77.58	0.00			156.06
BT7				8000	<b>-280.66</b>		74.6			276.74	0.00			355.22

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## DECIBEL - Detailed results

**Calculation:** DIURNO **Noise calculation model:** ISO 9613-2 General

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### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
Sum					<b>29.03</b>									
Sum				63	<b>45.74</b>									
Sum				125	<b>36.49</b>									
Sum				250	<b>29.94</b>									
Sum				500	<b>20.82</b>									
Sum				1000	<b>24.46</b>									
Sum				2000	<b>19.81</b>									
Sum				4000	<b>-2.19</b>									
Sum				8000	<b>-62.88</b>									

- Data undefined due to calculation with octave data

Wind speed: 7.0 m/s

### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT1		568	629		<b>29.96</b>	2.00	103.2	0.00	66.97	-	-	0.00	0.00	-
BT1				63	<b>17.46</b>		81.5			0.06	-3.00			64.03
BT1				125	<b>19.44</b>		90.2			0.25	3.54			70.76
BT1				250	<b>19.59</b>		95.8			0.63	8.60			76.20
BT1				500	<b>16.12</b>		98.3			1.19	14.00			82.16
BT1				1000	<b>23.48</b>		97.8			2.33	5.00			74.30
BT1				2000	<b>21.01</b>		94.1			6.10	0.00			73.07
BT1				4000	<b>-0.21</b>		87.4			20.62	0.00			87.59
BT1				8000	<b>-63.02</b>		77.5			73.57	0.00			140.54
BT2	1 028		1 095		<b>23.39</b>	2.00	103.2	0.00	71.79	-	-	0.00	0.00	-
BT2				63	<b>12.60</b>		81.5			0.11	-3.00			68.90
BT2				125	<b>12.43</b>		90.2			0.44	5.55			77.78
BT2				250	<b>14.31</b>		95.8			1.09	8.60			81.48
BT2				500	<b>10.42</b>		98.3			2.08	14.00			87.87
BT2				1000	<b>16.94</b>		97.8			4.05	5.00			80.84
BT2				2000	<b>11.68</b>		94.1			10.62	0.00			82.40
BT2				4000	<b>-20.31</b>		87.4			35.91	0.00			107.69
BT2				8000	<b>-122.35</b>		77.5			128.08	0.00			199.86
BT3	1 115		1 166		<b>22.63</b>	2.00	103.2	0.00	72.34	-	-	0.00	0.00	-
BT3				63	<b>12.04</b>		81.5			0.12	-3.00			69.45
BT3				125	<b>11.73</b>		90.2			0.47	5.67			78.48
BT3				250	<b>13.68</b>		95.8			1.17	8.60			82.10
BT3				500	<b>9.73</b>		98.3			2.22	14.00			88.55
BT3				1000	<b>16.12</b>		97.8			4.32	5.00			81.65
BT3				2000	<b>10.43</b>		94.1			11.31	0.00			83.65
BT3				4000	<b>-23.21</b>		87.4			38.26	0.00			110.59
BT3				8000	<b>-131.28</b>		77.5			136.46	0.00			208.80
BT4	1 266		1 310		<b>21.24</b>	2.00	103.2	0.00	73.34	-	-	0.00	0.00	-
BT4				63	<b>11.02</b>		81.5			0.13	-3.00			70.47
BT4				125	<b>10.55</b>		90.2			0.52	5.79			79.65
BT4				250	<b>12.53</b>		95.8			1.31	8.60			83.25
BT4				500	<b>8.45</b>		98.3			2.49	14.00			89.83
BT4				1000	<b>14.59</b>		97.8			4.85	5.00			83.19
BT4				2000	<b>8.03</b>		94.1			12.70	0.00			86.05
BT4				4000	<b>-28.92</b>		87.4			42.96	0.00			116.30
BT4				8000	<b>-149.06</b>		77.5			153.23	0.00			226.58
BT5	1 511		1 564		<b>19.12</b>	2.00	103.2	0.00	74.89	-	-	0.00	0.00	-
BT5				63	<b>9.45</b>		81.5			0.16	-3.00			72.04
BT5				125	<b>8.85</b>		90.2			0.63	5.84			81.35
BT5				250	<b>10.74</b>		95.8			1.56	8.60			85.05
BT5				500	<b>6.42</b>		98.3			2.97	14.00			91.86
BT5				1000	<b>12.10</b>		97.8			5.79	5.00			85.67
BT5				2000	<b>4.02</b>		94.1			15.17	0.00			90.06
BT5				4000	<b>-38.81</b>		87.4			51.31	0.00			126.19
BT5				8000	<b>-180.38</b>		77.5			183.01	0.00			257.90
BT6	1 974		2 007		<b>16.11</b>	2.00	103.2	0.00	77.05	-	-	0.00	0.00	-
BT6				63	<b>7.24</b>		81.5			0.20	-3.00			74.25
BT6				125	<b>6.50</b>		90.2			0.80	5.85			83.70

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Project:

**230515 Modello Borgo Taro per acustica**

Licensed user:

**MORI MANTOVANI ASSOCIATI SRL**

VIA STRASBURGO 18A

IT-43123 PARMA

+390521239944

GIULIO BARTOLI / giulio@morimantovani.it

Calculated:

02/06/2023 12:50/3.6.366

## DECIBEL - Detailed results

**Calculation:** DIURNO **Noise calculation model:** ISO 9613-2 General

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**WTG**

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT6				250	8.13		95.8			2.01	8.60			87.66
BT6				500	3.42		98.3			3.81	14.00			94.87
BT6				1000	8.30		97.8			7.43	5.00			89.48
BT6				2000	-2.44		94.1			19.47	0.00			96.52
BT6				4000	-55.51		87.4			65.84	0.00			142.89
BT6				8000	-234.39		77.5			234.85	0.00			311.90
BT7		2 337	2 365		14.13	2.00	103.2	0.00	78.48	-	-	0.00	0.00	-
BT7				63	5.78		81.5			0.24	-3.00			75.71
BT7				125	4.93		90.2			0.95	5.85			85.27
BT7				250	6.34		95.8			2.37	8.60			89.44
BT7				500	1.31		98.3			4.49	14.00			96.97
BT7				1000	5.55		97.8			8.75	5.00			92.23
BT7				2000	-7.34		94.1			22.94	0.00			101.42
BT7				4000	-68.68		87.4			77.58	0.00			156.06
BT7				8000	-277.71		77.5			276.74	0.00			355.22
Sum					32.24									
Sum				63	49.01									
Sum				125	39.77									
Sum				250	33.20									
Sum				500	24.02									
Sum				1000	27.66									
Sum				2000	22.88									
Sum				4000	0.86									
Sum				8000	-59.92									

- Data undefined due to calculation with octave data

Wind speed: 8.0 m/s

**WTG**

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT1		568	629		32.76	2.00	106.0	0.00	66.97	-	-	0.00	0.00	-
BT1				63	20.36		84.4			0.06	-3.00			64.03
BT1				125	22.34		93.1			0.25	3.54			70.76
BT1				250	22.45		98.7			0.63	8.60			76.20
BT1				500	18.98		101.1			1.19	14.00			82.16
BT1				1000	26.22		100.5			2.33	5.00			74.30
BT1				2000	23.71		96.8			6.10	0.00			73.07
BT1				4000	2.39		90.0			20.62	0.00			87.59
BT1				8000	-60.53		80.0			73.57	0.00			140.54
BT2		1 028	1 095		26.20	2.00	106.0	0.00	71.79	-	-	0.00	0.00	-
BT2				63	15.50		84.4			0.11	-3.00			68.90
BT2				125	15.33		93.1			0.44	5.55			77.78
BT2				250	17.17		98.7			1.09	8.60			81.48
BT2				500	13.28		101.1			2.08	14.00			87.87
BT2				1000	19.68		100.5			4.05	5.00			80.84
BT2				2000	14.38		96.8			10.62	0.00			82.40
BT2				4000	-17.71		90.0			35.91	0.00			107.69
BT2				8000	-119.86		80.0			128.08	0.00			199.86
BT3		1 115	1 166		25.45	2.00	106.0	0.00	72.34	-	-	0.00	0.00	-
BT3				63	14.94		84.4			0.12	-3.00			69.45
BT3				125	14.63		93.1			0.47	5.67			78.48
BT3				250	16.55		98.7			1.17	8.60			82.10
BT3				500	12.59		101.1			2.22	14.00			88.55
BT3				1000	18.86		100.5			4.32	5.00			81.65
BT3				2000	13.13		96.8			11.31	0.00			83.65
BT3				4000	-20.61		90.0			38.26	0.00			110.59
BT3				8000	-128.79		80.0			136.46	0.00			208.80
BT4		1 266	1 310		24.06	2.00	106.0	0.00	73.34	-	-	0.00	0.00	-
BT4				63	13.92		84.4			0.13	-3.00			70.47
BT4				125	13.45		93.1			0.52	5.79			79.65
BT4				250	15.40		98.7			1.31	8.60			83.25
BT4				500	11.31		101.1			2.49	14.00			89.83
BT4				1000	17.33		100.5			4.85	5.00			83.19

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## DECIBEL - Detailed results

**Calculation:** DIURNO **Noise calculation model:** ISO 9613-2 General

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### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT4				2000	10.73		96.8			12.70	0.00			86.05
BT4				4000	-26.32		90.0			42.96	0.00			116.30
BT4				8000	-146.57		80.0			153.23	0.00			226.58
BT5		1 511	1 564		21.95	2.00	106.0	0.00	74.89	-	-	0.00	0.00	-
BT5				63	12.35		84.4			0.16	-3.00			72.04
BT5				125	11.75		93.1			0.63	5.84			81.35
BT5				250	13.60		98.7			1.56	8.60			85.05
BT5				500	9.29		101.1			2.97	14.00			91.86
BT5				1000	14.84		100.5			5.79	5.00			85.67
BT5				2000	6.72		96.8			15.17	0.00			90.06
BT5				4000	-36.21		90.0			51.31	0.00			126.19
BT5				8000	-177.89		80.0			183.01	0.00			257.90
BT6		1 974	2 007		18.96	2.00	106.0	0.00	77.05	-	-	0.00	0.00	-
BT6				63	10.14		84.4			0.20	-3.00			74.25
BT6				125	9.40		93.1			0.80	5.85			83.70
BT6				250	10.99		98.7			2.01	8.60			87.66
BT6				500	6.28		101.1			3.81	14.00			94.87
BT6				1000	11.04		100.5			7.43	5.00			89.48
BT6				2000	0.26		96.8			19.47	0.00			96.52
BT6				4000	-52.91		90.0			65.84	0.00			142.89
BT6				8000	-231.90		80.0			234.85	0.00			311.90
BT7		2 337	2 365		16.98	2.00	106.0	0.00	78.48	-	-	0.00	0.00	-
BT7				63	8.68		84.4			0.24	-3.00			75.71
BT7				125	7.83		93.1			0.95	5.85			85.27
BT7				250	9.21		98.7			2.37	8.60			89.44
BT7				500	4.17		101.1			4.49	14.00			96.97
BT7				1000	8.29		100.5			8.75	5.00			92.23
BT7				2000	-4.64		96.8			22.94	0.00			101.42
BT7				4000	-66.08		90.0			77.58	0.00			156.06
BT7				8000	-275.22		80.0			276.74	0.00			355.22
Sum					35.04									
Sum				63	51.91									
Sum				125	42.67									
Sum				250	36.06									
Sum				500	26.89									
Sum				1000	30.40									
Sum				2000	25.58									
Sum				4000	3.46									
Sum				8000	-57.43									

- Data undefined due to calculation with octave data

Wind speed: 9.0 m/s

### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT1		568	629		33.66	2.00	106.9	0.00	66.97	-	-	0.00	0.00	-
BT1				63	21.36		85.4			0.06	-3.00			64.03
BT1				125	23.29		94.1			0.25	3.54			70.76
BT1				250	23.39		99.6			0.63	8.60			76.20
BT1				500	19.88		102.0			1.19	14.00			82.16
BT1				1000	27.12		101.4			2.33	5.00			74.30
BT1				2000	24.51		97.6			6.10	0.00			73.07
BT1				4000	3.17		90.8			20.62	0.00			87.59
BT1				8000	-59.86		80.7			73.57	0.00			140.54
BT2		1 028	1 095		27.12	2.00	106.9	0.00	71.79	-	-	0.00	0.00	-
BT2				63	16.50		85.4			0.11	-3.00			68.90
BT2				125	16.27		94.1			0.44	5.55			77.78
BT2				250	18.11		99.6			1.09	8.60			81.48
BT2				500	14.18		102.0			2.08	14.00			87.87
BT2				1000	20.58		101.4			4.05	5.00			80.84
BT2				2000	15.18		97.6			10.62	0.00			82.40
BT2				4000	-16.93		90.8			35.91	0.00			107.69
BT2				8000	-119.19		80.7			128.08	0.00			199.86

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## DECIBEL - Detailed results

**Calculation:** DIURNO **Noise calculation model:** ISO 9613-2 General

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### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT3		1 115	1 166		<b>26.36</b>	2.00	106.9	0.00	72.34	-	-	0.00	0.00	-
BT3				63	<b>15.94</b>		85.4			0.12	-3.00			69.45
BT3				125	<b>15.58</b>		94.1			0.47	5.67			78.48
BT3				250	<b>17.48</b>		99.6			1.17	8.60			82.10
BT3				500	<b>13.49</b>		102.0			2.22	14.00			88.55
BT3				1000	<b>19.76</b>		101.4			4.32	5.00			81.65
BT3				2000	<b>13.93</b>		97.6			11.31	0.00			83.65
BT3				4000	<b>-19.83</b>		90.8			38.26	0.00			110.59
BT3				8000	<b>-128.12</b>		80.7			136.46	0.00			208.80
BT4		1 266	1 310		<b>24.99</b>	2.00	106.9	0.00	73.34	-	-	0.00	0.00	-
BT4				63	<b>14.92</b>		85.4			0.13	-3.00			70.47
BT4				125	<b>14.40</b>		94.1			0.52	5.79			79.65
BT4				250	<b>16.33</b>		99.6			1.31	8.60			83.25
BT4				500	<b>12.21</b>		102.0			2.49	14.00			89.83
BT4				1000	<b>18.23</b>		101.4			4.85	5.00			83.19
BT4				2000	<b>11.53</b>		97.6			12.70	0.00			86.05
BT4				4000	<b>-25.54</b>		90.8			42.96	0.00			116.30
BT4				8000	<b>-145.90</b>		80.7			153.23	0.00			226.58
BT5		1 511	1 564		<b>22.87</b>	2.00	106.9	0.00	74.89	-	-	0.00	0.00	-
BT5				63	<b>13.35</b>		85.4			0.16	-3.00			72.04
BT5				125	<b>12.70</b>		94.1			0.63	5.84			81.35
BT5				250	<b>14.54</b>		99.6			1.56	8.60			85.05
BT5				500	<b>10.19</b>		102.0			2.97	14.00			91.86
BT5				1000	<b>15.74</b>		101.4			5.79	5.00			85.67
BT5				2000	<b>7.52</b>		97.6			15.17	0.00			90.06
BT5				4000	<b>-35.43</b>		90.8			51.31	0.00			126.19
BT5				8000	<b>-177.22</b>		80.7			183.01	0.00			257.90
BT6		1 974	2 007		<b>19.89</b>	2.00	106.9	0.00	77.05	-	-	0.00	0.00	-
BT6				63	<b>11.14</b>		85.4			0.20	-3.00			74.25
BT6				125	<b>10.35</b>		94.1			0.80	5.85			83.70
BT6				250	<b>11.93</b>		99.6			2.01	8.60			87.66
BT6				500	<b>7.18</b>		102.0			3.81	14.00			94.87
BT6				1000	<b>11.94</b>		101.4			7.43	5.00			89.48
BT6				2000	<b>1.06</b>		97.6			19.47	0.00			96.52
BT6				4000	<b>-52.12</b>		90.8			65.84	0.00			142.89
BT6				8000	<b>-231.22</b>		80.7			234.85	0.00			311.90
BT7		2 337	2 365		<b>17.92</b>	2.00	106.9	0.00	78.48	-	-	0.00	0.00	-
BT7				63	<b>9.68</b>		85.4			0.24	-3.00			75.71
BT7				125	<b>8.78</b>		94.1			0.95	5.85			85.27
BT7				250	<b>10.14</b>		99.6			2.37	8.60			89.44
BT7				500	<b>5.07</b>		102.0			4.49	14.00			96.97
BT7				1000	<b>9.19</b>		101.4			8.75	5.00			92.23
BT7				2000	<b>-3.84</b>		97.6			22.94	0.00			101.42
BT7				4000	<b>-65.29</b>		90.8			77.58	0.00			156.06
BT7				8000	<b>-274.54</b>		80.7			276.74	0.00			355.22
Sum					<b>35.95</b>									
Sum				63	<b>52.91</b>									
Sum				125	<b>43.62</b>									
Sum				250	<b>37.00</b>									
Sum				500	<b>27.79</b>									
Sum				1000	<b>31.30</b>									
Sum				2000	<b>26.38</b>									
Sum				4000	<b>4.24</b>									
Sum				8000	<b>-56.76</b>									

- Data undefined due to calculation with octave data

Wind speed: 10.0 m/s

### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT1		568	629		<b>33.66</b>	2.00	106.9	0.00	66.97	-	-	0.00	0.00	-
BT1				63	<b>21.26</b>		85.3			0.06	-3.00			64.03
BT1				125	<b>23.26</b>		94.0			0.25	3.54			70.76

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## DECIBEL - Detailed results

**Calculation:** DIURNO **Noise calculation model:** ISO 9613-2 General

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### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT1				250	23.35		99.6			0.63	8.60			76.20
BT1				500	19.88		102.0			1.19	14.00			82.16
BT1				1000	27.12		101.4			2.33	5.00			74.30
BT1				2000	24.61		97.7			6.10	0.00			73.07
BT1				4000	3.27		90.9			20.62	0.00			87.59
BT1				8000	-59.72		80.8			73.57	0.00			140.54
BT2	1 028	1 095			27.11	2.00	106.9	0.00	71.79	-	-	0.00	0.00	-
BT2				63	16.40		85.3			0.11	-3.00			68.90
BT2				125	16.24		94.0			0.44	5.55			77.78
BT2				250	18.07		99.6			1.09	8.60			81.48
BT2				500	14.18		102.0			2.08	14.00			87.87
BT2				1000	20.58		101.4			4.05	5.00			80.84
BT2				2000	15.28		97.7			10.62	0.00			82.40
BT2				4000	-16.83		90.9			35.91	0.00			107.69
BT2				8000	-119.05		80.8			128.08	0.00			199.86
BT3	1 115	1 166			26.35	2.00	106.9	0.00	72.34	-	-	0.00	0.00	-
BT3				63	15.84		85.3			0.12	-3.00			69.45
BT3				125	15.55		94.0			0.47	5.67			78.48
BT3				250	17.45		99.6			1.17	8.60			82.10
BT3				500	13.49		102.0			2.22	14.00			88.55
BT3				1000	19.76		101.4			4.32	5.00			81.65
BT3				2000	14.03		97.7			11.31	0.00			83.65
BT3				4000	-19.73		90.9			38.26	0.00			110.59
BT3				8000	-127.98		80.8			136.46	0.00			208.80
BT4	1 266	1 310			24.97	2.00	106.9	0.00	73.34	-	-	0.00	0.00	-
BT4				63	14.82		85.3			0.13	-3.00			70.47
BT4				125	14.37		94.0			0.52	5.79			79.65
BT4				250	16.30		99.6			1.31	8.60			83.25
BT4				500	12.21		102.0			2.49	14.00			89.83
BT4				1000	18.23		101.4			4.85	5.00			83.19
BT4				2000	11.63		97.7			12.70	0.00			86.05
BT4				4000	-25.44		90.9			42.96	0.00			116.30
BT4				8000	-145.76		80.8			153.23	0.00			226.58
BT5	1 511	1 564			22.85	2.00	106.9	0.00	74.89	-	-	0.00	0.00	-
BT5				63	13.25		85.3			0.16	-3.00			72.04
BT5				125	12.67		94.0			0.63	5.84			81.35
BT5				250	14.50		99.6			1.56	8.60			85.05
BT5				500	10.19		102.0			2.97	14.00			91.86
BT5				1000	15.74		101.4			5.79	5.00			85.67
BT5				2000	7.62		97.7			15.17	0.00			90.06
BT5				4000	-35.33		90.9			51.31	0.00			126.19
BT5				8000	-177.08		80.8			183.01	0.00			257.90
BT6	1 974	2 007			19.86	2.00	106.9	0.00	77.05	-	-	0.00	0.00	-
BT6				63	11.04		85.3			0.20	-3.00			74.25
BT6				125	10.32		94.0			0.80	5.85			83.70
BT6				250	11.89		99.6			2.01	8.60			87.66
BT6				500	7.18		102.0			3.81	14.00			94.87
BT6				1000	11.94		101.4			7.43	5.00			89.48
BT6				2000	1.16		97.7			19.47	0.00			96.52
BT6				4000	-52.02		90.9			65.84	0.00			142.89
BT6				8000	-231.09		80.8			234.85	0.00			311.90
BT7	2 337	2 365			17.88	2.00	106.9	0.00	78.48	-	-	0.00	0.00	-
BT7				63	9.58		85.3			0.24	-3.00			75.71
BT7				125	8.75		94.0			0.95	5.85			85.27
BT7				250	10.11		99.6			2.37	8.60			89.44
BT7				500	5.07		102.0			4.49	14.00			96.97
BT7				1000	9.19		101.4			8.75	5.00			92.23
BT7				2000	-3.74		97.7			22.94	0.00			101.42
BT7				4000	-65.19		90.9			77.58	0.00			156.06
BT7				8000	-274.41		80.8			276.74	0.00			355.22
Sum					35.95									
Sum				63	52.81									
Sum				125	43.59									

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## DECIBEL - Detailed results

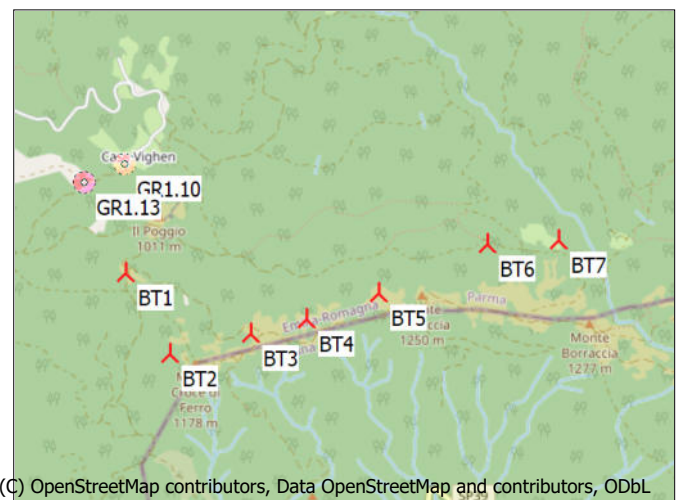
**Calculation:** DIURNO **Noise calculation model:** ISO 9613-2 General

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### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
Sum				250	<b>36.96</b>									
Sum				500	<b>27.79</b>									
Sum				1000	<b>31.30</b>									
Sum				2000	<b>26.48</b>									
Sum				4000	<b>4.34</b>									
Sum				8000	<b>-56.62</b>									

- Data undefined due to calculation with octave data



(C) OpenStreetMap contributors, Data OpenStreetMap and contributors, ODbL

Scale 1:40 000

New WTG

Noise sensitive area

### Noise sensitive area: GR1.13 Case Vighini

Wind speed: 3.0 m/s

### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT1		521	589		<b>20.71</b>	2.00	93.2	0.00	66.41	-	-	0.00	0.00	-
BT1				63	<b>7.05</b>		70.5			0.06	-3.00			63.47
BT1				125	<b>9.55</b>		79.4			0.24	3.18			69.82
BT1				250	<b>9.61</b>		85.2			0.59	8.60			75.60
BT1				500	<b>6.56</b>		88.1			1.12	14.00			81.53
BT1				1000	<b>14.41</b>		88.0			2.18	5.00			73.59
BT1				2000	<b>12.71</b>		84.8			5.72	0.00			72.12
BT1				4000	<b>-7.07</b>		78.7			19.33	0.00			85.73
BT1				8000	<b>-65.90</b>		69.5			68.94	0.00			135.35
BT2		1 012	1 081		<b>13.38</b>	2.00	93.2	0.00	71.68	-	-	0.00	0.00	-
BT2				63	<b>1.73</b>		70.5			0.11	-3.00			68.79
BT2				125	<b>1.74</b>		79.4			0.43	5.52			77.64
BT2				250	<b>3.85</b>		85.2			1.08	8.60			81.36
BT2				500	<b>0.35</b>		88.1			2.05	14.00			87.73
BT2				1000	<b>7.31</b>		88.0			4.00	5.00			80.68
BT2				2000	<b>2.66</b>		84.8			10.49	0.00			82.17
BT2				4000	<b>-28.49</b>		78.7			35.47	0.00			107.15
BT2				8000	<b>-128.74</b>		69.5			126.51	0.00			198.19
BT3		1 187	1 237		<b>11.72</b>	2.00	93.2	0.00	72.85	-	-	0.00	0.00	-
BT3				63	<b>0.55</b>		70.5			0.12	-3.00			69.97
BT3				125	<b>0.29</b>		79.4			0.49	5.74			79.08
BT3				250	<b>2.52</b>		85.2			1.24	8.60			82.68
BT3				500	<b>-1.11</b>		88.1			2.35	14.00			89.20
BT3				1000	<b>5.57</b>		88.0			4.58	5.00			82.42
BT3				2000	<b>-0.02</b>		84.8			12.00	0.00			84.85
BT3				4000	<b>-34.76</b>		78.7			40.58	0.00			113.42

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Project:

**230515 Modello Borgo Taro per acustica**

Licensed user:

**MORI MANTOVANI ASSOCIATI SRL**

VIA STRASBURGO 18A

IT-43123 PARMA

+390521239944

GIULIO BARTOLI / giulio@morimantovani.it

Calculated:

02/06/2023 12:50/3.6.366

## DECIBEL - Detailed results

**Calculation: DIURNO Noise calculation model: ISO 9613-2 General**

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**WTG**

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT3				8000	<b>-148.13</b>		69.5			144.73	0.00			217.58
BT4		1 381	1 422		<b>9.99</b>	2.00	93.2	0.00	74.06	-	-	0.00	0.00	-
BT4				63	<b>-0.68</b>		70.5			0.14	-3.00			71.20
BT4				125	<b>-1.07</b>		79.4			0.57	5.82			80.45
BT4				250	<b>1.13</b>		85.2			1.42	8.60			84.08
BT4				500	<b>-2.67</b>		88.1			2.70	14.00			90.76
BT4				1000	<b>3.67</b>		88.0			5.26	5.00			84.32
BT4				2000	<b>-3.02</b>		84.8			13.80	0.00			87.85
BT4				4000	<b>-42.05</b>		78.7			46.65	0.00			120.71
BT4				8000	<b>-171.01</b>		69.5			166.40	0.00			240.46
BT5		1 664	1 714		<b>7.67</b>	2.00	93.2	0.00	75.68	-	-	0.00	0.00	-
BT5				63	<b>-2.34</b>		70.5			0.17	-3.00			72.85
BT5				125	<b>-2.84</b>		79.4			0.69	5.85			82.21
BT5				250	<b>-0.79</b>		85.2			1.71	8.60			86.00
BT5				500	<b>-4.85</b>		88.1			3.26	14.00			92.94
BT5				1000	<b>0.97</b>		88.0			6.34	5.00			87.03
BT5				2000	<b>-7.48</b>		84.8			16.63	0.00			92.31
BT5				4000	<b>-53.26</b>		78.7			56.23	0.00			131.91
BT5				8000	<b>-206.81</b>		69.5			200.59	0.00			276.27
BT6		2 162	2 193		<b>4.60</b>	2.00	93.2	0.00	77.82	-	-	0.00	0.00	-
BT6				63	<b>-4.52</b>		70.5			0.22	-3.00			75.04
BT6				125	<b>-5.17</b>		79.4			0.88	5.85			84.55
BT6				250	<b>-3.41</b>		85.2			2.19	8.60			88.61
BT6				500	<b>-7.90</b>		88.1			4.17	14.00			95.99
BT6				1000	<b>-2.94</b>		88.0			8.11	5.00			90.94
BT6				2000	<b>-14.27</b>		84.8			21.27	0.00			99.10
BT6				4000	<b>-71.10</b>		78.7			71.94	0.00			149.76
BT6				8000	<b>-264.97</b>		69.5			256.60	0.00			334.42
BT7		2 529	2 556		<b>2.69</b>	2.00	93.2	0.00	79.15	-	-	0.00	0.00	-
BT7				63	<b>-5.89</b>		70.5			0.26	-3.00			76.41
BT7				125	<b>-6.65</b>		79.4			1.02	5.85			86.02
BT7				250	<b>-5.10</b>		85.2			2.56	8.60			90.31
BT7				500	<b>-9.92</b>		88.1			4.86	14.00			98.01
BT7				1000	<b>-5.62</b>		88.0			9.46	5.00			93.61
BT7				2000	<b>-19.12</b>		84.8			24.80	0.00			103.95
BT7				4000	<b>-84.35</b>		78.7			83.85	0.00			163.00
BT7				8000	<b>-308.80</b>		69.5			299.10	0.00			378.26
Sum					<b>22.43</b>									
Sum				63	<b>38.09</b>									
Sum				125	<b>29.37</b>									
Sum				250	<b>22.71</b>									
Sum				500	<b>13.96</b>									
Sum				1000	<b>18.12</b>									
Sum				2000	<b>14.27</b>									
Sum				4000	<b>-6.03</b>									
Sum				8000	<b>-62.80</b>									

- Data undefined due to calculation with octave data

Wind speed: 4.0 m/s

**WTG**

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT1		521	589		<b>21.10</b>	2.00	93.6	0.00	66.41	-	-	0.00	0.00	-
BT1				63	<b>7.83</b>		71.3			0.06	-3.00			63.47
BT1				125	<b>10.25</b>		80.1			0.24	3.18			69.82
BT1				250	<b>10.21</b>		85.8			0.59	8.60			75.60
BT1				500	<b>7.06</b>		88.6			1.12	14.00			81.53
BT1				1000	<b>14.72</b>		88.3			2.18	5.00			73.59
BT1				2000	<b>12.85</b>		85.0			5.72	0.00			72.12
BT1				4000	<b>-7.01</b>		78.7			19.33	0.00			85.73
BT1				8000	<b>-65.94</b>		69.4			68.94	0.00			135.35
BT2		1 012	1 081		<b>13.83</b>	2.00	93.6	0.00	71.68	-	-	0.00	0.00	-
BT2				63	<b>2.50</b>		71.3			0.11	-3.00			68.79

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## DECIBEL - Detailed results

**Calculation:** DIURNO **Noise calculation model:** ISO 9613-2 General

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### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT2				125	2.44		80.1			0.43	5.52			77.64
BT2				250	4.45		85.8			1.08	8.60			81.36
BT2				500	0.85		88.6			2.05	14.00			87.73
BT2				1000	7.62		88.3			4.00	5.00			80.68
BT2				2000	2.81		85.0			10.49	0.00			82.17
BT2				4000	-28.42		78.7			35.47	0.00			107.15
BT2				8000	-128.79		69.4			126.51	0.00			198.19
BT3	1 187	1 237			12.19	2.00	93.6	0.00	72.85	-	-	0.00	0.00	-
BT3				63	1.32		71.3			0.12	-3.00			69.97
BT3				125	0.99		80.1			0.49	5.74			79.08
BT3				250	3.12		85.8			1.24	8.60			82.68
BT3				500	-0.61		88.6			2.35	14.00			89.20
BT3				1000	5.88		88.3			4.58	5.00			82.42
BT3				2000	0.13		85.0			12.00	0.00			84.85
BT3				4000	-34.69		78.7			40.58	0.00			113.42
BT3				8000	-148.18		69.4			144.73	0.00			217.58
BT4	1 381	1 422			10.48	2.00	93.6	0.00	74.06	-	-	0.00	0.00	-
BT4				63	0.09		71.3			0.14	-3.00			71.20
BT4				125	-0.37		80.1			0.57	5.82			80.45
BT4				250	1.73		85.8			1.42	8.60			84.08
BT4				500	-2.17		88.6			2.70	14.00			90.76
BT4				1000	3.98		88.3			5.26	5.00			84.32
BT4				2000	-2.88		85.0			13.80	0.00			87.85
BT4				4000	-41.98		78.7			46.65	0.00			120.71
BT4				8000	-171.05		69.4			166.40	0.00			240.46
BT5	1 664	1 714			8.19	2.00	93.6	0.00	75.68	-	-	0.00	0.00	-
BT5				63	-1.56		71.3			0.17	-3.00			72.85
BT5				125	-2.14		80.1			0.69	5.85			82.21
BT5				250	-0.19		85.8			1.71	8.60			86.00
BT5				500	-4.35		88.6			3.26	14.00			92.94
BT5				1000	1.28		88.3			6.34	5.00			87.03
BT5				2000	-7.34		85.0			16.63	0.00			92.31
BT5				4000	-53.19		78.7			56.23	0.00			131.91
BT5				8000	-206.86		69.4			200.59	0.00			276.27
BT6	2 162	2 193			5.16	2.00	93.6	0.00	77.82	-	-	0.00	0.00	-
BT6				63	-3.75		71.3			0.22	-3.00			75.04
BT6				125	-4.47		80.1			0.88	5.85			84.55
BT6				250	-2.81		85.8			2.19	8.60			88.61
BT6				500	-7.40		88.6			4.17	14.00			95.99
BT6				1000	-2.63		88.3			8.11	5.00			90.94
BT6				2000	-14.12		85.0			21.27	0.00			99.10
BT6				4000	-71.03		78.7			71.94	0.00			149.76
BT6				8000	-265.02		69.4			256.60	0.00			334.42
BT7	2 529	2 556			3.26	2.00	93.6	0.00	79.15	-	-	0.00	0.00	-
BT7				63	-5.12		71.3			0.26	-3.00			76.41
BT7				125	-5.95		80.1			1.02	5.85			86.02
BT7				250	-4.50		85.8			2.56	8.60			90.31
BT7				500	-9.42		88.6			4.86	14.00			98.01
BT7				1000	-5.31		88.3			9.46	5.00			93.61
BT7				2000	-18.97		85.0			24.80	0.00			103.95
BT7				4000	-84.28		78.7			83.85	0.00			163.00
BT7				8000	-308.85		69.4			299.10	0.00			378.26
Sum					22.85									
Sum				63	38.86									
Sum				125	30.07									
Sum				250	23.31									
Sum				500	14.46									
Sum				1000	18.43									
Sum				2000	14.41									
Sum				4000	-5.97									
Sum				8000	-62.84									

- Data undefined due to calculation with octave data

## DECIBEL - Detailed results

**Calculation:** DIURNO **Noise calculation model:** ISO 9613-2 General

Wind speed: 5.0 m/s

### WTG

No.	Reflection obstacle	Distance	Sound distance	Frequency	Calculated	Uncertainty margin	LwA,ref	Dc	Adiv	Aatm	Agr	Abar	Amisc	A
		[m]	[m]	[Hz]	[dB(A)]	[dB]	[dB(A)]	[dB]	[dB]	[dB]	[dB]	[dB]	[dB]	[dB]
BT1		521	589		<b>24.02</b>	2.00	96.5	0.00	66.41	-	-	0.00	0.00	-
BT1				63	<b>11.13</b>		74.6			0.06	-3.00			63.47
BT1				125	<b>13.48</b>		83.3			0.24	3.18			69.82
BT1				250	<b>13.33</b>		88.9			0.59	8.60			75.60
BT1				500	<b>10.03</b>		91.6			1.12	14.00			81.53
BT1				1000	<b>17.52</b>		91.1			2.18	5.00			73.59
BT1				2000	<b>15.50</b>		87.6			5.72	0.00			72.12
BT1				4000	<b>-4.60</b>		81.1			19.33	0.00			85.73
BT1				8000	<b>-63.85</b>		71.5			68.94	0.00			135.35
BT2	1 012		1 081		<b>16.79</b>	2.00	96.5	0.00	71.68	-	-	0.00	0.00	-
BT2				63	<b>5.80</b>		74.6			0.11	-3.00			68.79
BT2				125	<b>5.67</b>		83.3			0.43	5.52			77.64
BT2				250	<b>7.57</b>		88.9			1.08	8.60			81.36
BT2				500	<b>3.82</b>		91.6			2.05	14.00			87.73
BT2				1000	<b>10.42</b>		91.1			4.00	5.00			80.68
BT2				2000	<b>5.45</b>		87.6			10.49	0.00			82.17
BT2				4000	<b>-26.01</b>		81.1			35.47	0.00			107.15
BT2				8000	<b>-126.70</b>		71.5			126.51	0.00			198.19
BT3	1 187		1 237		<b>15.17</b>	2.00	96.5	0.00	72.85	-	-	0.00	0.00	-
BT3				63	<b>4.62</b>		74.6			0.12	-3.00			69.97
BT3				125	<b>4.22</b>		83.3			0.49	5.74			79.08
BT3				250	<b>6.25</b>		88.9			1.24	8.60			82.68
BT3				500	<b>2.35</b>		91.6			2.35	14.00			89.20
BT3				1000	<b>8.68</b>		91.1			4.58	5.00			82.42
BT3				2000	<b>2.78</b>		87.6			12.00	0.00			84.85
BT3				4000	<b>-32.28</b>		81.1			40.58	0.00			113.42
BT3				8000	<b>-146.09</b>		71.5			144.73	0.00			217.58
BT4	1 381		1 422		<b>13.49</b>	2.00	96.5	0.00	74.06	-	-	0.00	0.00	-
BT4				63	<b>3.39</b>		74.6			0.14	-3.00			71.20
BT4				125	<b>2.85</b>		83.3			0.57	5.82			80.45
BT4				250	<b>4.85</b>		88.9			1.42	8.60			84.08
BT4				500	<b>0.79</b>		91.6			2.70	14.00			90.76
BT4				1000	<b>6.78</b>		91.1			5.26	5.00			84.32
BT4				2000	<b>-0.23</b>		87.6			13.80	0.00			87.85
BT4				4000	<b>-39.57</b>		81.1			46.65	0.00			120.71
BT4				8000	<b>-168.97</b>		71.5			166.40	0.00			240.46
BT5	1 664		1 714		<b>11.22</b>	2.00	96.5	0.00	75.68	-	-	0.00	0.00	-
BT5				63	<b>1.74</b>		74.6			0.17	-3.00			72.85
BT5				125	<b>1.09</b>		83.3			0.69	5.85			82.21
BT5				250	<b>2.93</b>		88.9			1.71	8.60			86.00
BT5				500	<b>-1.39</b>		91.6			3.26	14.00			92.94
BT5				1000	<b>4.08</b>		91.1			6.34	5.00			87.03
BT5				2000	<b>-4.69</b>		87.6			16.63	0.00			92.31
BT5				4000	<b>-50.78</b>		81.1			56.23	0.00			131.91
BT5				8000	<b>-204.77</b>		71.5			200.59	0.00			276.27
BT6	2 162		2 193		<b>8.23</b>	2.00	96.5	0.00	77.82	-	-	0.00	0.00	-
BT6				63	<b>-0.45</b>		74.6			0.22	-3.00			75.04
BT6				125	<b>-1.24</b>		83.3			0.88	5.85			84.55
BT6				250	<b>0.32</b>		88.9			2.19	8.60			88.61
BT6				500	<b>-4.44</b>		91.6			4.17	14.00			95.99
BT6				1000	<b>0.17</b>		91.1			8.11	5.00			90.94
BT6				2000	<b>-11.47</b>		87.6			21.27	0.00			99.10
BT6				4000	<b>-68.62</b>		81.1			71.94	0.00			149.76
BT6				8000	<b>-262.93</b>		71.5			256.60	0.00			334.42
BT7	2 529		2 556		<b>6.36</b>	2.00	96.5	0.00	79.15	-	-	0.00	0.00	-
BT7				63	<b>-1.82</b>		74.6			0.26	-3.00			76.41
BT7				125	<b>-2.72</b>		83.3			1.02	5.85			86.02
BT7				250	<b>-1.38</b>		88.9			2.56	8.60			90.31
BT7				500	<b>-6.46</b>		91.6			4.86	14.00			98.01
BT7				1000	<b>-2.51</b>		91.1			9.46	5.00			93.61
BT7				2000	<b>-16.33</b>		87.6			24.80	0.00			103.95
BT7				4000	<b>-81.87</b>		81.1			83.85	0.00			163.00
BT7				8000	<b>-306.76</b>		71.5			299.10	0.00			378.26

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## DECIBEL - Detailed results

**Calculation:** DIURNO **Noise calculation model:** ISO 9613-2 General

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### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
Sum					<b>25.79</b>									
Sum				63	<b>42.16</b>									
Sum				125	<b>33.30</b>									
Sum				250	<b>26.43</b>									
Sum				500	<b>17.43</b>									
Sum				1000	<b>21.23</b>									
Sum				2000	<b>17.06</b>									
Sum				4000	<b>-3.56</b>									
Sum				8000	<b>-60.75</b>									

- Data undefined due to calculation with octave data

Wind speed: 6.0 m/s

### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT1		521	589		<b>27.52</b>	2.00	100.0	0.00	66.41	-	-	0.00	0.00	-
BT1				63	<b>14.76</b>		78.2			0.06	-3.00			63.47
BT1				125	<b>17.10</b>		86.9			0.24	3.18			69.82
BT1				250	<b>16.93</b>		92.5			0.59	8.60			75.60
BT1				500	<b>13.56</b>		95.1			1.12	14.00			81.53
BT1				1000	<b>20.99</b>		94.6			2.18	5.00			73.59
BT1				2000	<b>18.88</b>		91.0			5.72	0.00			72.12
BT1				4000	<b>-1.40</b>		84.3			19.33	0.00			85.73
BT1				8000	<b>-60.79</b>		74.6			68.94	0.00			135.35
BT2	1 012		1 081		<b>20.32</b>	2.00	100.0	0.00	71.68	-	-	0.00	0.00	-
BT2				63	<b>9.44</b>		78.2			0.11	-3.00			68.79
BT2				125	<b>9.29</b>		86.9			0.43	5.52			77.64
BT2				250	<b>11.17</b>		92.5			1.08	8.60			81.36
BT2				500	<b>7.35</b>		95.1			2.05	14.00			87.73
BT2				1000	<b>13.90</b>		94.6			4.00	5.00			80.68
BT2				2000	<b>8.83</b>		91.0			10.49	0.00			82.17
BT2				4000	<b>-22.81</b>		84.3			35.47	0.00			107.15
BT2				8000	<b>-123.63</b>		74.6			126.51	0.00			198.19
BT3	1 187		1 237		<b>18.71</b>	2.00	100.0	0.00	72.85	-	-	0.00	0.00	-
BT3				63	<b>8.26</b>		78.2			0.12	-3.00			69.97
BT3				125	<b>7.84</b>		86.9			0.49	5.74			79.08
BT3				250	<b>9.85</b>		92.5			1.24	8.60			82.68
BT3				500	<b>5.88</b>		95.1			2.35	14.00			89.20
BT3				1000	<b>12.15</b>		94.6			4.58	5.00			82.42
BT3				2000	<b>6.15</b>		91.0			12.00	0.00			84.85
BT3				4000	<b>-29.08</b>		84.3			40.58	0.00			113.42
BT3				8000	<b>-143.02</b>		74.6			144.73	0.00			217.58
BT4	1 381		1 422		<b>17.03</b>	2.00	100.0	0.00	74.06	-	-	0.00	0.00	-
BT4				63	<b>7.03</b>		78.2			0.14	-3.00			71.20
BT4				125	<b>6.47</b>		86.9			0.57	5.82			80.45
BT4				250	<b>8.45</b>		92.5			1.42	8.60			84.08
BT4				500	<b>4.32</b>		95.1			2.70	14.00			90.76
BT4				1000	<b>10.25</b>		94.6			5.26	5.00			84.32
BT4				2000	<b>3.15</b>		91.0			13.80	0.00			87.85
BT4				4000	<b>-36.37</b>		84.3			46.65	0.00			120.71
BT4				8000	<b>-165.90</b>		74.6			166.40	0.00			240.46
BT5	1 664		1 714		<b>14.78</b>	2.00	100.0	0.00	75.68	-	-	0.00	0.00	-
BT5				63	<b>5.38</b>		78.2			0.17	-3.00			72.85
BT5				125	<b>4.71</b>		86.9			0.69	5.85			82.21
BT5				250	<b>6.53</b>		92.5			1.71	8.60			86.00
BT5				500	<b>2.14</b>		95.1			3.26	14.00			92.94
BT5				1000	<b>7.55</b>		94.6			6.34	5.00			87.03
BT5				2000	<b>-1.31</b>		91.0			16.63	0.00			92.31
BT5				4000	<b>-47.58</b>		84.3			56.23	0.00			131.91
BT5				8000	<b>-201.71</b>		74.6			200.59	0.00			276.27
BT6	2 162		2 193		<b>11.80</b>	2.00	100.0	0.00	77.82	-	-	0.00	0.00	-
BT6				63	<b>3.19</b>		78.2			0.22	-3.00			75.04
BT6				125	<b>2.37</b>		86.9			0.88	5.85			84.55

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## DECIBEL - Detailed results

**Calculation:** DIURNO **Noise calculation model:** ISO 9613-2 General

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### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT6				250	3.92		92.5			2.19	8.60			88.61
BT6				500	-0.91		95.1			4.17	14.00			95.99
BT6				1000	3.64		94.6			8.11	5.00			90.94
BT6				2000	-8.09		91.0			21.27	0.00			99.10
BT6				4000	-65.42		84.3			71.94	0.00			149.76
BT6				8000	-259.87		74.6			256.60	0.00			334.42
BT7		2 529	2 556		9.94	2.00	100.0	0.00	79.15	-	-	0.00	0.00	-
BT7				63	1.82		78.2			0.26	-3.00			76.41
BT7				125	0.90		86.9			1.02	5.85			86.02
BT7				250	2.22		92.5			2.56	8.60			90.31
BT7				500	-2.93		95.1			4.86	14.00			98.01
BT7				1000	0.96		94.6			9.46	5.00			93.61
BT7				2000	-12.95		91.0			24.80	0.00			103.95
BT7				4000	-78.67		84.3			83.85	0.00			163.00
BT7				8000	-303.70		74.6			299.10	0.00			378.26
Sum					29.31									
Sum				63	45.80									
Sum				125	36.92									
Sum				250	30.03									
Sum				500	20.96									
Sum				1000	24.70									
Sum				2000	20.44									
Sum				4000	-0.36									
Sum				8000	-57.69									

- Data undefined due to calculation with octave data

Wind speed: 7.0 m/s

### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT1		521	589		30.72	2.00	103.2	0.00	66.41	-	-	0.00	0.00	-
BT1				63	18.03		81.5			0.06	-3.00			63.47
BT1				125	20.38		90.2			0.24	3.18			69.82
BT1				250	20.19		95.8			0.59	8.60			75.60
BT1				500	16.76		98.3			1.12	14.00			81.53
BT1				1000	24.19		97.8			2.18	5.00			73.59
BT1				2000	21.96		94.1			5.72	0.00			72.12
BT1				4000	1.65		87.4			19.33	0.00			85.73
BT1				8000	-57.84		77.5			68.94	0.00			135.35
BT2		1 012	1 081		23.54	2.00	103.2	0.00	71.68	-	-	0.00	0.00	-
BT2				63	12.70		81.5			0.11	-3.00			68.79
BT2				125	12.57		90.2			0.43	5.52			77.64
BT2				250	14.43		95.8			1.08	8.60			81.36
BT2				500	10.55		98.3			2.05	14.00			87.73
BT2				1000	17.10		97.8			4.00	5.00			80.68
BT2				2000	11.91		94.1			10.49	0.00			82.17
BT2				4000	-19.77		87.4			35.47	0.00			107.15
BT2				8000	-120.68		77.5			126.51	0.00			198.19
BT3		1 187	1 237		21.93	2.00	103.2	0.00	72.85	-	-	0.00	0.00	-
BT3				63	11.52		81.5			0.12	-3.00			69.97
BT3				125	11.12		90.2			0.49	5.74			79.08
BT3				250	13.10		95.8			1.24	8.60			82.68
BT3				500	9.08		98.3			2.35	14.00			89.20
BT3				1000	15.35		97.8			4.58	5.00			82.42
BT3				2000	9.23		94.1			12.00	0.00			84.85
BT3				4000	-26.04		87.4			40.58	0.00			113.42
BT3				8000	-140.07		77.5			144.73	0.00			217.58
BT4		1 381	1 422		20.26	2.00	103.2	0.00	74.06	-	-	0.00	0.00	-
BT4				63	10.29		81.5			0.14	-3.00			71.20
BT4				125	9.75		90.2			0.57	5.82			80.45
BT4				250	11.70		95.8			1.42	8.60			84.08
BT4				500	7.52		98.3			2.70	14.00			90.76
BT4				1000	13.45		97.8			5.26	5.00			84.32

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## DECIBEL - Detailed results

**Calculation:** DIURNO **Noise calculation model:** ISO 9613-2 General

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### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT4				2000	6.23		94.1			13.80	0.00			87.85
BT4				4000	-33.33		87.4			46.65	0.00			120.71
BT4				8000	-162.95		77.5			166.40	0.00			240.46
BT5		1 664	1 714		18.01	2.00	103.2	0.00	75.68	-	-	0.00	0.00	-
BT5				63	8.64		81.5			0.17	-3.00			72.85
BT5				125	7.99		90.2			0.69	5.85			82.21
BT5				250	9.79		95.8			1.71	8.60			86.00
BT5				500	5.34		98.3			3.26	14.00			92.94
BT5				1000	10.75		97.8			6.34	5.00			87.03
BT5				2000	1.77		94.1			16.63	0.00			92.31
BT5				4000	-44.54		87.4			56.23	0.00			131.91
BT5				8000	-198.76		77.5			200.59	0.00			276.27
BT6		2 162	2 193		15.04	2.00	103.2	0.00	77.82	-	-	0.00	0.00	-
BT6				63	6.45		81.5			0.22	-3.00			75.04
BT6				125	5.66		90.2			0.88	5.85			84.55
BT6				250	7.17		95.8			2.19	8.60			88.61
BT6				500	2.29		98.3			4.17	14.00			95.99
BT6				1000	6.84		97.8			8.11	5.00			90.94
BT6				2000	-5.02		94.1			21.27	0.00			99.10
BT6				4000	-62.38		87.4			71.94	0.00			149.76
BT6				8000	-256.91		77.5			256.60	0.00			334.42
BT7		2 529	2 556		13.19	2.00	103.2	0.00	79.15	-	-	0.00	0.00	-
BT7				63	5.08		81.5			0.26	-3.00			76.41
BT7				125	4.18		90.2			1.02	5.85			86.02
BT7				250	5.48		95.8			2.56	8.60			90.31
BT7				500	0.27		98.3			4.86	14.00			98.01
BT7				1000	4.16		97.8			9.46	5.00			93.61
BT7				2000	-9.87		94.1			24.80	0.00			103.95
BT7				4000	-75.62		87.4			83.85	0.00			163.00
BT7				8000	-300.75		77.5			299.10	0.00			378.26
Sum					32.52									
Sum				63	49.06									
Sum				125	40.20									
Sum				250	33.29									
Sum				500	24.16									
Sum				1000	27.90									
Sum				2000	23.52									
Sum				4000	2.69									
Sum				8000	-54.74									

- Data undefined due to calculation with octave data

Wind speed: 8.0 m/s

### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT1		521	589		33.52	2.00	106.0	0.00	66.41	-	-	0.00	0.00	-
BT1				63	20.93		84.4			0.06	-3.00			63.47
BT1				125	23.28		93.1			0.24	3.18			69.82
BT1				250	23.06		98.7			0.59	8.60			75.60
BT1				500	19.62		101.1			1.12	14.00			81.53
BT1				1000	26.93		100.5			2.18	5.00			73.59
BT1				2000	24.66		96.8			5.72	0.00			72.12
BT1				4000	4.25		90.0			19.33	0.00			85.73
BT1				8000	-55.35		80.0			68.94	0.00			135.35
BT2		1 012	1 081		26.35	2.00	106.0	0.00	71.68	-	-	0.00	0.00	-
BT2				63	15.60		84.4			0.11	-3.00			68.79
BT2				125	15.47		93.1			0.43	5.52			77.64
BT2				250	17.29		98.7			1.08	8.60			81.36
BT2				500	13.41		101.1			2.05	14.00			87.73
BT2				1000	19.83		100.5			4.00	5.00			80.68
BT2				2000	14.61		96.8			10.49	0.00			82.17
BT2				4000	-17.17		90.0			35.47	0.00			107.15
BT2				8000	-118.19		80.0			126.51	0.00			198.19

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## DECIBEL - Detailed results

**Calculation:** DIURNO **Noise calculation model:** ISO 9613-2 General

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### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT3		1 187	1 237		<b>24.74</b>	2.00	106.0	0.00	72.85	-	-	0.00	0.00	-
BT3				63	<b>14.42</b>		84.4			0.12	-3.00			69.97
BT3				125	<b>14.02</b>		93.1			0.49	5.74			79.08
BT3				250	<b>15.97</b>		98.7			1.24	8.60			82.68
BT3				500	<b>11.95</b>		101.1			2.35	14.00			89.20
BT3				1000	<b>18.09</b>		100.5			4.58	5.00			82.42
BT3				2000	<b>11.93</b>		96.8			12.00	0.00			84.85
BT3				4000	<b>-23.44</b>		90.0			40.58	0.00			113.42
BT3				8000	<b>-137.58</b>		80.0			144.73	0.00			217.58
BT4		1 381	1 422		<b>23.08</b>	2.00	106.0	0.00	74.06	-	-	0.00	0.00	-
BT4				63	<b>13.19</b>		84.4			0.14	-3.00			71.20
BT4				125	<b>12.65</b>		93.1			0.57	5.82			80.45
BT4				250	<b>14.57</b>		98.7			1.42	8.60			84.08
BT4				500	<b>10.38</b>		101.1			2.70	14.00			90.76
BT4				1000	<b>16.19</b>		100.5			5.26	5.00			84.32
BT4				2000	<b>8.93</b>		96.8			13.80	0.00			87.85
BT4				4000	<b>-30.73</b>		90.0			46.65	0.00			120.71
BT4				8000	<b>-160.46</b>		80.0			166.40	0.00			240.46
BT5		1 664	1 714		<b>20.85</b>	2.00	106.0	0.00	75.68	-	-	0.00	0.00	-
BT5				63	<b>11.54</b>		84.4			0.17	-3.00			72.85
BT5				125	<b>10.89</b>		93.1			0.69	5.85			82.21
BT5				250	<b>12.66</b>		98.7			1.71	8.60			86.00
BT5				500	<b>8.21</b>		101.1			3.26	14.00			92.94
BT5				1000	<b>13.49</b>		100.5			6.34	5.00			87.03
BT5				2000	<b>4.47</b>		96.8			16.63	0.00			92.31
BT5				4000	<b>-41.94</b>		90.0			56.23	0.00			131.91
BT5				8000	<b>-196.27</b>		80.0			200.59	0.00			276.27
BT6		2 162	2 193		<b>17.89</b>	2.00	106.0	0.00	77.82	-	-	0.00	0.00	-
BT6				63	<b>9.35</b>		84.4			0.22	-3.00			75.04
BT6				125	<b>8.56</b>		93.1			0.88	5.85			84.55
BT6				250	<b>10.04</b>		98.7			2.19	8.60			88.61
BT6				500	<b>5.16</b>		101.1			4.17	14.00			95.99
BT6				1000	<b>9.58</b>		100.5			8.11	5.00			90.94
BT6				2000	<b>-2.32</b>		96.8			21.27	0.00			99.10
BT6				4000	<b>-59.78</b>		90.0			71.94	0.00			149.76
BT6				8000	<b>-254.42</b>		80.0			256.60	0.00			334.42
BT7		2 529	2 556		<b>16.04</b>	2.00	106.0	0.00	79.15	-	-	0.00	0.00	-
BT7				63	<b>7.98</b>		84.4			0.26	-3.00			76.41
BT7				125	<b>7.08</b>		93.1			1.02	5.85			86.02
BT7				250	<b>8.34</b>		98.7			2.56	8.60			90.31
BT7				500	<b>3.14</b>		101.1			4.86	14.00			98.01
BT7				1000	<b>6.90</b>		100.5			9.46	5.00			93.61
BT7				2000	<b>-7.17</b>		96.8			24.80	0.00			103.95
BT7				4000	<b>-73.02</b>		90.0			83.85	0.00			163.00
BT7				8000	<b>-298.26</b>		80.0			299.10	0.00			378.26
Sum					<b>35.32</b>									
Sum				63	<b>51.96</b>									
Sum				125	<b>43.10</b>									
Sum				250	<b>36.15</b>									
Sum				500	<b>27.02</b>									
Sum				1000	<b>30.64</b>									
Sum				2000	<b>26.22</b>									
Sum				4000	<b>5.29</b>									
Sum				8000	<b>-52.25</b>									

- Data undefined due to calculation with octave data

Wind speed: 9.0 m/s

### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT1		521	589		<b>34.42</b>	2.00	106.9	0.00	66.41	-	-	0.00	0.00	-
BT1				63	<b>21.93</b>		85.4			0.06	-3.00			63.47
BT1				125	<b>24.23</b>		94.1			0.24	3.18			69.82

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## DECIBEL - Detailed results

**Calculation:** DIURNO **Noise calculation model:** ISO 9613-2 General

...continued from previous page

### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT1				250	23.99		99.6			0.59	8.60			75.60
BT1				500	20.52		102.0			1.12	14.00			81.53
BT1				1000	27.83		101.4			2.18	5.00			73.59
BT1				2000	25.46		97.6			5.72	0.00			72.12
BT1				4000	5.03		90.8			19.33	0.00			85.73
BT1				8000	-54.67		80.7			68.94	0.00			135.35
BT2	1 012		1 081		27.27	2.00	106.9	0.00	71.68	-	-	0.00	0.00	-
BT2				63	16.60		85.4			0.11	-3.00			68.79
BT2				125	16.42		94.1			0.43	5.52			77.64
BT2				250	18.23		99.6			1.08	8.60			81.36
BT2				500	14.31		102.0			2.05	14.00			87.73
BT2				1000	20.73		101.4			4.00	5.00			80.68
BT2				2000	15.41		97.6			10.49	0.00			82.17
BT2				4000	-16.38		90.8			35.47	0.00			107.15
BT2				8000	-117.51		80.7			126.51	0.00			198.19
BT3	1 187		1 237		25.66	2.00	106.9	0.00	72.85	-	-	0.00	0.00	-
BT3				63	15.42		85.4			0.12	-3.00			69.97
BT3				125	14.97		94.1			0.49	5.74			79.08
BT3				250	16.90		99.6			1.24	8.60			82.68
BT3				500	12.85		102.0			2.35	14.00			89.20
BT3				1000	18.99		101.4			4.58	5.00			82.42
BT3				2000	12.73		97.6			12.00	0.00			84.85
BT3				4000	-22.66		90.8			40.58	0.00			113.42
BT3				8000	-136.91		80.7			144.73	0.00			217.58
BT4	1 381		1 422		24.01	2.00	106.9	0.00	74.06	-	-	0.00	0.00	-
BT4				63	14.19		85.4			0.14	-3.00			71.20
BT4				125	13.60		94.1			0.57	5.82			80.45
BT4				250	15.50		99.6			1.42	8.60			84.08
BT4				500	11.28		102.0			2.70	14.00			90.76
BT4				1000	17.09		101.4			5.26	5.00			84.32
BT4				2000	9.73		97.6			13.80	0.00			87.85
BT4				4000	-29.94		90.8			46.65	0.00			120.71
BT4				8000	-159.78		80.7			166.40	0.00			240.46
BT5	1 664		1 714		21.78	2.00	106.9	0.00	75.68	-	-	0.00	0.00	-
BT5				63	12.54		85.4			0.17	-3.00			72.85
BT5				125	11.84		94.1			0.69	5.85			82.21
BT5				250	13.59		99.6			1.71	8.60			86.00
BT5				500	9.11		102.0			3.26	14.00			92.94
BT5				1000	14.39		101.4			6.34	5.00			87.03
BT5				2000	5.27		97.6			16.63	0.00			92.31
BT5				4000	-41.15		90.8			56.23	0.00			131.91
BT5				8000	-195.59		80.7			200.59	0.00			276.27
BT6	2 162		2 193		18.83	2.00	106.9	0.00	77.82	-	-	0.00	0.00	-
BT6				63	10.35		85.4			0.22	-3.00			75.04
BT6				125	9.50		94.1			0.88	5.85			84.55
BT6				250	10.97		99.6			2.19	8.60			88.61
BT6				500	6.06		102.0			4.17	14.00			95.99
BT6				1000	10.48		101.4			8.11	5.00			90.94
BT6				2000	-1.52		97.6			21.27	0.00			99.10
BT6				4000	-58.99		90.8			71.94	0.00			149.76
BT6				8000	-253.75		80.7			256.60	0.00			334.42
BT7	2 529		2 556		16.99	2.00	106.9	0.00	79.15	-	-	0.00	0.00	-
BT7				63	8.98		85.4			0.26	-3.00			76.41
BT7				125	8.03		94.1			1.02	5.85			86.02
BT7				250	9.28		99.6			2.56	8.60			90.31
BT7				500	4.04		102.0			4.86	14.00			98.01
BT7				1000	7.80		101.4			9.46	5.00			93.61
BT7				2000	-6.37		97.6			24.80	0.00			103.95
BT7				4000	-72.24		90.8			83.85	0.00			163.00
BT7				8000	-297.58		80.7			299.10	0.00			378.26
Sum					36.23									
Sum				63	52.96									
Sum				125	44.05									

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## DECIBEL - Detailed results

**Calculation:** DIURNO **Noise calculation model:** ISO 9613-2 General

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### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
Sum				250	<b>37.09</b>									
Sum				500	<b>27.92</b>									
Sum				1000	<b>31.54</b>									
Sum				2000	<b>27.02</b>									
Sum				4000	<b>6.07</b>									
Sum				8000	<b>-51.57</b>									

- Data undefined due to calculation with octave data

Wind speed: 10.0 m/s

### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT1		521	589	63	<b>34.42</b>	2.00	106.9	0.00	66.41	-	-	0.00	0.00	-
BT1				125	<b>21.83</b>		85.3			0.06	-3.00			63.47
BT1				250	<b>24.20</b>		94.0			0.24	3.18			69.82
BT1				500	<b>23.96</b>		99.6			0.59	8.60			75.60
BT1				1000	<b>20.52</b>		102.0			1.12	14.00			81.53
BT1				2000	<b>27.83</b>		101.4			2.18	5.00			73.59
BT1				4000	<b>25.56</b>		97.7			5.72	0.00			72.12
BT1				8000	<b>5.13</b>		90.9			19.33	0.00			85.73
BT1					<b>-54.54</b>		80.8			68.94	0.00			135.35
BT2	1 012		1 081	63	<b>27.25</b>	2.00	106.9	0.00	71.68	-	-	0.00	0.00	-
BT2				125	<b>16.50</b>		85.3			0.11	-3.00			68.79
BT2				250	<b>16.39</b>		94.0			0.43	5.52			77.64
BT2				500	<b>18.19</b>		99.6			1.08	8.60			81.36
BT2				1000	<b>14.31</b>		102.0			2.05	14.00			87.73
BT2				2000	<b>20.73</b>		101.4			4.00	5.00			80.68
BT2				4000	<b>15.51</b>		97.7			10.49	0.00			82.17
BT2				8000	<b>-16.28</b>		90.9			35.47	0.00			107.15
BT2					<b>-117.38</b>		80.8			126.51	0.00			198.19
BT3	1 187		1 237	63	<b>25.65</b>	2.00	106.9	0.00	72.85	-	-	0.00	0.00	-
BT3				125	<b>15.32</b>		85.3			0.12	-3.00			69.97
BT3				250	<b>14.94</b>		94.0			0.49	5.74			79.08
BT3				500	<b>16.87</b>		99.6			1.24	8.60			82.68
BT3				1000	<b>12.85</b>		102.0			2.35	14.00			89.20
BT3				2000	<b>18.99</b>		101.4			4.58	5.00			82.42
BT3				4000	<b>12.83</b>		97.7			12.00	0.00			84.85
BT3				8000	<b>-22.56</b>		90.9			40.58	0.00			113.42
BT3					<b>-136.77</b>		80.8			144.73	0.00			217.58
BT4	1 381		1 422	63	<b>23.98</b>	2.00	106.9	0.00	74.06	-	-	0.00	0.00	-
BT4				125	<b>14.09</b>		85.3			0.14	-3.00			71.20
BT4				250	<b>13.57</b>		94.0			0.57	5.82			80.45
BT4				500	<b>15.47</b>		99.6			1.42	8.60			84.08
BT4				1000	<b>11.28</b>		102.0			2.70	14.00			90.76
BT4				2000	<b>17.09</b>		101.4			5.26	5.00			84.32
BT4				4000	<b>9.83</b>		97.7			13.80	0.00			87.85
BT4				8000	<b>-29.84</b>		90.9			46.65	0.00			120.71
BT4					<b>-159.65</b>		80.8			166.40	0.00			240.46
BT5	1 664		1 714	63	<b>21.75</b>	2.00	106.9	0.00	75.68	-	-	0.00	0.00	-
BT5				125	<b>12.44</b>		85.3			0.17	-3.00			72.85
BT5				250	<b>11.81</b>		94.0			0.69	5.85			82.21
BT5				500	<b>13.56</b>		99.6			1.71	8.60			86.00
BT5				1000	<b>9.11</b>		102.0			3.26	14.00			92.94
BT5				2000	<b>14.39</b>		101.4			6.34	5.00			87.03
BT5				4000	<b>5.37</b>		97.7			16.63	0.00			92.31
BT5				8000	<b>-41.05</b>		90.9			56.23	0.00			131.91
BT5					<b>-195.46</b>		80.8			200.59	0.00			276.27
BT6	2 162		2 193	63	<b>18.79</b>	2.00	106.9	0.00	77.82	-	-	0.00	0.00	-
BT6				125	<b>10.25</b>		85.3			0.22	-3.00			75.04
BT6				250	<b>9.47</b>		94.0			0.88	5.85			84.55
BT6				500	<b>10.94</b>		99.6			2.19	8.60			88.61
BT6				1000	<b>6.06</b>		102.0			4.17	14.00			95.99
BT6					<b>10.48</b>		101.4			8.11	5.00			90.94

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## DECIBEL - Detailed results

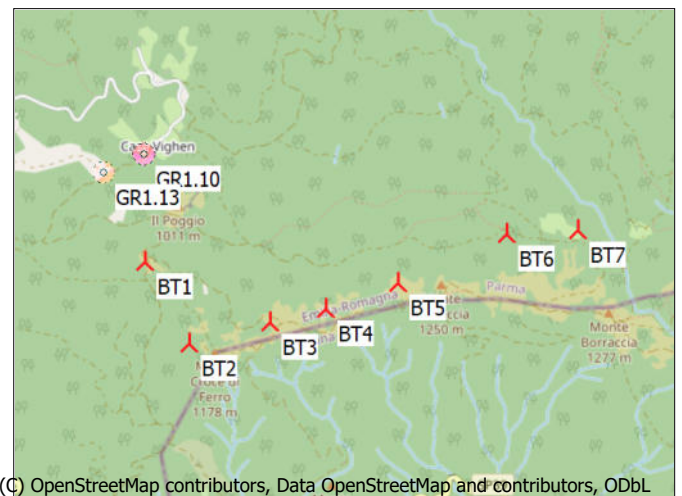
**Calculation:** DIURNO **Noise calculation model:** ISO 9613-2 General

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### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT6				2000	-1.42		97.7			21.27	0.00			99.10
BT6				4000	-58.89		90.9			71.94	0.00			149.76
BT6				8000	-253.61		80.8			256.60	0.00			334.42
BT7		2 529	2 556		16.95	2.00	106.9	0.00	79.15	-	-	0.00	0.00	-
BT7				63	8.88		85.3			0.26	-3.00			76.41
BT7				125	8.00		94.0			1.02	5.85			86.02
BT7				250	9.24		99.6			2.56	8.60			90.31
BT7				500	4.04		102.0			4.86	14.00			98.01
BT7				1000	7.80		101.4			9.46	5.00			93.61
BT7				2000	-6.27		97.7			24.80	0.00			103.95
BT7				4000	-72.14		90.9			83.85	0.00			163.00
BT7				8000	-297.45		80.8			299.10	0.00			378.26
Sum					36.22									
Sum				63	52.86									
Sum				125	44.02									
Sum				250	37.05									
Sum				500	27.92									
Sum				1000	31.54									
Sum				2000	27.12									
Sum				4000	6.17									
Sum				8000	-51.44									

- Data undefined due to calculation with octave data



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Scale 1:40 000

New WTG

Noise sensitive area

### Noise sensitive area: GR2.101 Valdena

Wind speed: 3.0 m/s

### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT1		2 614	2 662		2.18	2.00	93.2	0.00	79.51	-	-	0.00	0.00	-
BT1				63	-6.25		70.5			0.27	-3.00			76.77
BT1				125	-7.04		79.4			1.06	5.85			86.42
BT1				250	-5.56		85.2			2.66	8.60			90.77
BT1				500	-10.48		88.1			5.06	14.00			98.56
BT1				1000	-6.36		88.0			9.85	5.00			94.36
BT1				2000	-20.50		84.8			25.82	0.00			105.33
BT1				4000	-88.17		78.7			87.32	0.00			166.83
BT1				8000	-321.54		69.5			311.49	0.00			390.99
BT2		2 552	2 624		2.36	2.00	93.2	0.00	79.38	-	-	0.00	0.00	-
BT2				63	-6.12		70.5			0.26	-3.00			76.64

To be continued on next page...

## DECIBEL - Detailed results

**Calculation:** DIURNO **Noise calculation model:** ISO 9613-2 General

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### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT2				125	-6.90		79.4			1.05	5.85			86.28
BT2				250	-5.40		85.2			2.62	8.60			90.60
BT2				500	-10.28		88.1			4.99	14.00			98.37
BT2				1000	-6.09		88.0			9.71	5.00			94.09
BT2				2000	-20.00		84.8			25.45	0.00			104.83
BT2				4000	-86.79		78.7			86.07	0.00			165.45
BT2				8000	-316.95		69.5			307.03	0.00			386.41
BT3	2 981	3 036			0.54	2.00	93.2	0.00	80.65	-	-	0.00	0.00	-
BT3				63	-7.43		70.5			0.30	-3.00			77.95
BT3				125	-8.33		79.4			1.21	5.85			87.71
BT3				250	-7.07		85.2			3.04	8.60			92.28
BT3				500	-12.33		88.1			5.77	14.00			100.41
BT3				1000	-8.88		88.0			11.23	5.00			96.88
BT3				2000	-25.27		84.8			29.45	0.00			110.10
BT3				4000	-101.57		78.7			99.58	0.00			180.23
BT3				8000	-366.41		69.5			355.21	0.00			435.86
BT4	3 278	3 327			-0.60	2.00	93.2	0.00	81.44	-	-	0.00	0.00	-
BT4				63	-8.26		70.5			0.33	-3.00			78.77
BT4				125	-9.25		79.4			1.33	5.85			88.62
BT4				250	-8.16		85.2			3.33	8.60			93.37
BT4				500	-13.68		88.1			6.32	14.00			101.76
BT4				1000	-10.76		88.0			12.31	5.00			98.75
BT4				2000	-28.89		84.8			32.28	0.00			113.72
BT4				4000	-111.92		78.7			109.14	0.00			190.58
BT4				8000	-401.29		69.5			389.30	0.00			470.74
BT5	3 680	3 736			-1.96	2.00	93.2	0.00	82.45	-	-	0.00	0.00	-
BT5				63	-9.04		70.5			0.37	-3.26			79.56
BT5				125	-10.42		79.4			1.49	5.85			89.79
BT5				250	-9.58		85.2			3.74	8.60			94.78
BT5				500	-15.46		88.1			7.10	14.00			103.54
BT5				1000	-13.27		88.0			13.82	5.00			101.27
BT5				2000	-33.85		84.8			36.23	0.00			118.68
BT5				4000	-126.31		78.7			122.52	0.00			204.97
BT5				8000	-450.05		69.5			437.05	0.00			519.50
BT6	4 313	4 354			-3.70	2.00	93.2	0.00	83.78	-	-	0.00	0.00	-
BT6				63	-10.03		70.5			0.44	-3.66			80.55
BT6				125	-11.99		79.4			1.74	5.85			91.37
BT6				250	-11.52		85.2			4.35	8.60			96.73
BT6				500	-17.96		88.1			8.27	14.00			106.05
BT6				1000	-16.89		88.0			16.11	5.00			104.89
BT6				2000	-41.18		84.8			42.23	0.00			126.01
BT6				4000	-147.93		78.7			142.81	0.00			226.59
BT6				8000	-523.73		69.5			509.41	0.00			593.19
BT7	4 661	4 700			-4.55	2.00	93.2	0.00	84.44	-	-	0.00	0.00	-
BT7				63	-10.56		70.5			0.47	-3.84			81.07
BT7				125	-12.79		79.4			1.88	5.85			92.17
BT7				250	-12.53		85.2			4.70	8.60			97.74
BT7				500	-19.28		88.1			8.93	14.00			107.37
BT7				1000	-18.83		88.0			17.39	5.00			106.83
BT7				2000	-45.20		84.8			45.59	0.00			130.03
BT7				4000	-159.93		78.7			154.14	0.00			238.59
BT7				8000	-564.83		69.5			549.85	0.00			634.29
Sum					8.32									
Sum				63	28.70									
Sum				125	17.51									
Sum				250	11.21									
Sum				500	0.53									
Sum				1000	0.87									
Sum				2000	-15.45									
Sum				4000	-83.33									
Sum				8000	-312.56									

- Data undefined due to calculation with octave data

## DECIBEL - Detailed results

**Calculation:** DIURNO **Noise calculation model:** ISO 9613-2 General

Wind speed: 4.0 m/s

### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT1		2 614	2 662		<b>2.76</b>	2.00	93.6	0.00	79.51	-	-	0.00	0.00	-
BT1				63	<b>-5.48</b>		71.3			0.27	-3.00			76.77
BT1				125	<b>-6.34</b>		80.1			1.06	5.85			86.42
BT1				250	<b>-4.96</b>		85.8			2.66	8.60			90.77
BT1				500	<b>-9.98</b>		88.6			5.06	14.00			98.56
BT1				1000	<b>-6.05</b>		88.3			9.85	5.00			94.36
BT1				2000	<b>-20.35</b>		85.0			25.82	0.00			105.33
BT1				4000	<b>-88.10</b>		78.7			87.32	0.00			166.83
BT1				8000	<b>-321.59</b>		69.4			311.49	0.00			390.99
BT2		2 552	2 624		<b>2.94</b>	2.00	93.6	0.00	79.38	-	-	0.00	0.00	-
BT2				63	<b>-5.35</b>		71.3			0.26	-3.00			76.64
BT2				125	<b>-6.20</b>		80.1			1.05	5.85			86.28
BT2				250	<b>-4.80</b>		85.8			2.62	8.60			90.60
BT2				500	<b>-9.78</b>		88.6			4.99	14.00			98.37
BT2				1000	<b>-5.79</b>		88.3			9.71	5.00			94.09
BT2				2000	<b>-19.86</b>		85.0			25.45	0.00			104.83
BT2				4000	<b>-86.72</b>		78.7			86.07	0.00			165.45
BT2				8000	<b>-317.00</b>		69.4			307.03	0.00			386.41
BT3		2 981	3 036		<b>1.14</b>	2.00	93.6	0.00	80.65	-	-	0.00	0.00	-
BT3				63	<b>-6.66</b>		71.3			0.30	-3.00			77.95
BT3				125	<b>-7.63</b>		80.1			1.21	5.85			87.71
BT3				250	<b>-6.47</b>		85.8			3.04	8.60			92.28
BT3				500	<b>-11.83</b>		88.6			5.77	14.00			100.41
BT3				1000	<b>-8.58</b>		88.3			11.23	5.00			96.88
BT3				2000	<b>-25.12</b>		85.0			29.45	0.00			110.10
BT3				4000	<b>-101.50</b>		78.7			99.58	0.00			180.23
BT3				8000	<b>-366.46</b>		69.4			355.21	0.00			435.86
BT4		3 278	3 327		<b>0.02</b>	2.00	93.6	0.00	81.44	-	-	0.00	0.00	-
BT4				63	<b>-7.48</b>		71.3			0.33	-3.00			78.77
BT4				125	<b>-8.55</b>		80.1			1.33	5.85			88.62
BT4				250	<b>-7.56</b>		85.8			3.33	8.60			93.37
BT4				500	<b>-13.18</b>		88.6			6.32	14.00			101.76
BT4				1000	<b>-10.45</b>		88.3			12.31	5.00			98.75
BT4				2000	<b>-28.74</b>		85.0			32.28	0.00			113.72
BT4				4000	<b>-111.85</b>		78.7			109.14	0.00			190.58
BT4				8000	<b>-401.34</b>		69.4			389.30	0.00			470.74
BT5		3 680	3 736		<b>-1.32</b>	2.00	93.6	0.00	82.45	-	-	0.00	0.00	-
BT5				63	<b>-8.27</b>		71.3			0.37	-3.26			79.56
BT5				125	<b>-9.72</b>		80.1			1.49	5.85			89.79
BT5				250	<b>-8.98</b>		85.8			3.74	8.60			94.78
BT5				500	<b>-14.96</b>		88.6			7.10	14.00			103.54
BT5				1000	<b>-12.96</b>		88.3			13.82	5.00			101.27
BT5				2000	<b>-33.71</b>		85.0			36.23	0.00			118.68
BT5				4000	<b>-126.24</b>		78.7			122.52	0.00			204.97
BT5				8000	<b>-450.10</b>		69.4			437.05	0.00			519.50
BT6		4 313	4 354		<b>-3.04</b>	2.00	93.6	0.00	83.78	-	-	0.00	0.00	-
BT6				63	<b>-9.26</b>		71.3			0.44	-3.66			80.55
BT6				125	<b>-11.29</b>		80.1			1.74	5.85			91.37
BT6				250	<b>-10.92</b>		85.8			4.35	8.60			96.73
BT6				500	<b>-17.46</b>		88.6			8.27	14.00			106.05
BT6				1000	<b>-16.58</b>		88.3			16.11	5.00			104.89
BT6				2000	<b>-41.03</b>		85.0			42.23	0.00			126.01
BT6				4000	<b>-147.86</b>		78.7			142.81	0.00			226.59
BT6				8000	<b>-523.78</b>		69.4			509.41	0.00			593.19
BT7		4 661	4 700		<b>-3.88</b>	2.00	93.6	0.00	84.44	-	-	0.00	0.00	-
BT7				63	<b>-9.78</b>		71.3			0.47	-3.84			81.07
BT7				125	<b>-12.09</b>		80.1			1.88	5.85			92.17
BT7				250	<b>-11.93</b>		85.8			4.70	8.60			97.74
BT7				500	<b>-18.78</b>		88.6			8.93	14.00			107.37
BT7				1000	<b>-18.53</b>		88.3			17.39	5.00			106.83
BT7				2000	<b>-45.05</b>		85.0			45.59	0.00			130.03
BT7				4000	<b>-159.86</b>		78.7			154.14	0.00			238.59
BT7				8000	<b>-564.88</b>		69.4			549.85	0.00			634.29

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## DECIBEL - Detailed results

**Calculation:** DIURNO **Noise calculation model:** ISO 9613-2 General

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### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
Sum					<b>8.92</b>									
Sum				63	<b>29.48</b>									
Sum				125	<b>18.21</b>									
Sum				250	<b>11.81</b>									
Sum				500	<b>1.03</b>									
Sum				1000	<b>1.18</b>									
Sum				2000	<b>-15.31</b>									
Sum				4000	<b>-83.26</b>									
Sum				8000	<b>-312.60</b>									

- Data undefined due to calculation with octave data

Wind speed: 5.0 m/s

### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT1		2 614	2 662	63	<b>5.87</b>	2.00	96.5	0.00	79.51	-	-	0.00	0.00	-
BT1				125	<b>-2.18</b>		74.6			0.27	-3.00			76.77
BT1				250	<b>-3.11</b>		83.3			1.06	5.85			86.42
BT1				500	<b>-1.84</b>		88.9			2.66	8.60			90.77
BT1				1000	<b>-7.01</b>		91.6			5.06	14.00			98.56
BT1				2000	<b>-3.25</b>		91.1			9.85	5.00			94.36
BT1				4000	<b>-17.71</b>		87.6			25.82	0.00			105.33
BT1				8000	<b>-85.69</b>		81.1			87.32	0.00			166.83
BT1					<b>-319.50</b>		71.5			311.49	0.00			390.99
BT2		2 552	2 624	63	<b>6.05</b>	2.00	96.5	0.00	79.38	-	-	0.00	0.00	-
BT2				125	<b>-2.05</b>		74.6			0.26	-3.00			76.64
BT2				250	<b>-2.97</b>		83.3			1.05	5.85			86.28
BT2				500	<b>-1.67</b>		88.9			2.62	8.60			90.60
BT2				1000	<b>-6.81</b>		91.6			4.99	14.00			98.37
BT2				2000	<b>-2.99</b>		91.1			9.71	5.00			94.09
BT2				4000	<b>-17.21</b>		87.6			25.45	0.00			104.83
BT2				8000	<b>-84.31</b>		81.1			86.07	0.00			165.45
BT2					<b>-314.91</b>		71.5			307.03	0.00			386.41
BT3		2 981	3 036	63	<b>4.27</b>	2.00	96.5	0.00	80.65	-	-	0.00	0.00	-
BT3				125	<b>-3.36</b>		74.6			0.30	-3.00			77.95
BT3				250	<b>-4.40</b>		83.3			1.21	5.85			87.71
BT3				500	<b>-3.35</b>		88.9			3.04	8.60			92.28
BT3				1000	<b>-8.86</b>		91.6			5.77	14.00			100.41
BT3				2000	<b>-5.78</b>		91.1			11.23	5.00			96.88
BT3				4000	<b>-22.47</b>		87.6			29.45	0.00			110.10
BT3				8000	<b>-99.09</b>		81.1			99.58	0.00			180.23
BT3					<b>-364.37</b>		71.5			355.21	0.00			435.86
BT4		3 278	3 327	63	<b>3.16</b>	2.00	96.5	0.00	81.44	-	-	0.00	0.00	-
BT4				125	<b>-4.18</b>		74.6			0.33	-3.00			78.77
BT4				250	<b>-5.32</b>		83.3			1.33	5.85			88.62
BT4				500	<b>-4.44</b>		88.9			3.33	8.60			93.37
BT4				1000	<b>-10.21</b>		91.6			6.32	14.00			101.76
BT4				2000	<b>-7.65</b>		91.1			12.31	5.00			98.75
BT4				4000	<b>-26.10</b>		87.6			32.28	0.00			113.72
BT4				8000	<b>-109.44</b>		81.1			109.14	0.00			190.58
BT4					<b>-399.25</b>		71.5			389.30	0.00			470.74
BT5		3 680	3 736	63	<b>1.84</b>	2.00	96.5	0.00	82.45	-	-	0.00	0.00	-
BT5				125	<b>-4.97</b>		74.6			0.37	-3.26			79.56
BT5				250	<b>-6.49</b>		83.3			1.49	5.85			89.79
BT5				500	<b>-5.85</b>		88.9			3.74	8.60			94.78
BT5				1000	<b>-11.99</b>		91.6			7.10	14.00			103.54
BT5				2000	<b>-10.16</b>		91.1			13.82	5.00			101.27
BT5				4000	<b>-31.06</b>		87.6			36.23	0.00			118.68
BT5				8000	<b>-123.83</b>		81.1			122.52	0.00			204.97
BT5					<b>-448.01</b>		71.5			437.05	0.00			519.50
BT6		4 313	4 354	63	<b>0.15</b>	2.00	96.5	0.00	83.78	-	-	0.00	0.00	-
BT6				125	<b>-5.96</b>		74.6			0.44	-3.66			80.55
BT6					<b>-8.06</b>		83.3			1.74	5.85			91.37

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## DECIBEL - Detailed results

**Calculation:** DIURNO **Noise calculation model:** ISO 9613-2 General

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### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT6				250	-7.80		88.9			4.35	8.60			96.73
BT6				500	-14.50		91.6			8.27	14.00			106.05
BT6				1000	-13.78		91.1			16.11	5.00			104.89
BT6				2000	-38.39		87.6			42.23	0.00			126.01
BT6				4000	-145.45		81.1			142.81	0.00			226.59
BT6				8000	-521.69		71.5			509.41	0.00			593.19
BT7		4 661	4 700		-0.68	2.00	96.5	0.00	84.44	-	-	0.00	0.00	-
BT7				63	-6.48		74.6			0.47	-3.84			81.07
BT7				125	-8.87		83.3			1.88	5.85			92.17
BT7				250	-8.81		88.9			4.70	8.60			97.74
BT7				500	-15.82		91.6			8.93	14.00			107.37
BT7				1000	-15.73		91.1			17.39	5.00			106.83
BT7				2000	-42.40		87.6			45.59	0.00			130.03
BT7				4000	-157.45		81.1			154.14	0.00			238.59
BT7				8000	-562.79		71.5			549.85	0.00			634.29
Sum					12.05									
Sum				63	32.78									
Sum				125	21.44									
Sum				250	14.94									
Sum				500	3.99									
Sum				1000	3.98									
Sum				2000	-12.66									
Sum				4000	-80.85									
Sum				8000	-310.51									

- Data undefined due to calculation with octave data

Wind speed: 6.0 m/s

### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT1		2 614	2 662		9.45	2.00	100.0	0.00	79.51	-	-	0.00	0.00	-
BT1				63	1.46		78.2			0.27	-3.00			76.77
BT1				125	0.50		86.9			1.06	5.85			86.42
BT1				250	1.76		92.5			2.66	8.60			90.77
BT1				500	-3.48		95.1			5.06	14.00			98.56
BT1				1000	0.22		94.6			9.85	5.00			94.36
BT1				2000	-14.33		91.0			25.82	0.00			105.33
BT1				4000	-82.49		84.3			87.32	0.00			166.83
BT1				8000	-316.43		74.6			311.49	0.00			390.99
BT2		2 552	2 624		9.63	2.00	100.0	0.00	79.38	-	-	0.00	0.00	-
BT2				63	1.59		78.2			0.26	-3.00			76.64
BT2				125	0.64		86.9			1.05	5.85			86.28
BT2				250	1.93		92.5			2.62	8.60			90.60
BT2				500	-3.28		95.1			4.99	14.00			98.37
BT2				1000	0.49		94.6			9.71	5.00			94.09
BT2				2000	-13.83		91.0			25.45	0.00			104.83
BT2				4000	-81.11		84.3			86.07	0.00			165.45
BT2				8000	-311.85		74.6			307.03	0.00			386.41
BT3		2 981	3 036		7.86	2.00	100.0	0.00	80.65	-	-	0.00	0.00	-
BT3				63	0.28		78.2			0.30	-3.00			77.95
BT3				125	-0.79		86.9			1.21	5.85			87.71
BT3				250	0.25		92.5			3.04	8.60			92.28
BT3				500	-5.33		95.1			5.77	14.00			100.41
BT3				1000	-2.30		94.6			11.23	5.00			96.88
BT3				2000	-19.09		91.0			29.45	0.00			110.10
BT3				4000	-95.89		84.3			99.58	0.00			180.23
BT3				8000	-361.30		74.6			355.21	0.00			435.86
BT4		3 278	3 327		6.75	2.00	100.0	0.00	81.44	-	-	0.00	0.00	-
BT4				63	-0.55		78.2			0.33	-3.00			78.77
BT4				125	-1.70		86.9			1.33	5.85			88.62
BT4				250	-0.84		92.5			3.33	8.60			93.37
BT4				500	-6.68		95.1			6.32	14.00			101.76
BT4				1000	-4.18		94.6			12.31	5.00			98.75

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## DECIBEL - Detailed results

**Calculation:** DIURNO **Noise calculation model:** ISO 9613-2 General

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### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT4				2000	-22.72		91.0			32.28	0.00			113.72
BT4				4000	-106.24		84.3			109.14	0.00			190.58
BT4				8000	-396.19		74.6			389.30	0.00			470.74
BT5		3 680	3 736		5.44	2.00	100.0	0.00	82.45	-	-	0.00	0.00	-
BT5				63	-1.33		78.2			0.37	-3.26			79.56
BT5				125	-2.87		86.9			1.49	5.85			89.79
BT5				250	-2.25		92.5			3.74	8.60			94.78
BT5				500	-8.46		95.1			7.10	14.00			103.54
BT5				1000	-6.69		94.6			13.82	5.00			101.27
BT5				2000	-27.68		91.0			36.23	0.00			118.68
BT5				4000	-120.63		84.3			122.52	0.00			204.97
BT5				8000	-444.94		74.6			437.05	0.00			519.50
BT6		4 313	4 354		3.76	2.00	100.0	0.00	83.78	-	-	0.00	0.00	-
BT6				63	-2.32		78.2			0.44	-3.66			80.55
BT6				125	-4.45		86.9			1.74	5.85			91.37
BT6				250	-4.20		92.5			4.35	8.60			96.73
BT6				500	-10.97		95.1			8.27	14.00			106.05
BT6				1000	-10.31		94.6			16.11	5.00			104.89
BT6				2000	-35.01		91.0			42.23	0.00			126.01
BT6				4000	-142.25		84.3			142.81	0.00			226.59
BT6				8000	-518.63		74.6			509.41	0.00			593.19
BT7		4 661	4 700		2.93	2.00	100.0	0.00	84.44	-	-	0.00	0.00	-
BT7				63	-2.84		78.2			0.47	-3.84			81.07
BT7				125	-5.25		86.9			1.88	5.85			92.17
BT7				250	-5.21		92.5			4.70	8.60			97.74
BT7				500	-12.29		95.1			8.93	14.00			107.37
BT7				1000	-12.25		94.6			17.39	5.00			106.83
BT7				2000	-39.03		91.0			45.59	0.00			130.03
BT7				4000	-154.25		84.3			154.14	0.00			238.59
BT7				8000	-559.73		74.6			549.85	0.00			634.29
Sum					15.64									
Sum				63	36.42									
Sum				125	25.06									
Sum				250	18.54									
Sum				500	7.52									
Sum				1000	7.45									
Sum				2000	-9.28									
Sum				4000	-77.65									
Sum				8000	-307.45									

- Data undefined due to calculation with octave data

Wind speed: 7.0 m/s

### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT1		2 614	2 662		12.70	2.00	103.2	0.00	79.51	-	-	0.00	0.00	-
BT1				63	4.72		81.5			0.27	-3.00			76.77
BT1				125	3.79		90.2			1.06	5.85			86.42
BT1				250	5.02		95.8			2.66	8.60			90.77
BT1				500	-0.28		98.3			5.06	14.00			98.56
BT1				1000	3.42		97.8			9.85	5.00			94.36
BT1				2000	-11.25		94.1			25.82	0.00			105.33
BT1				4000	-79.45		87.4			87.32	0.00			166.83
BT1				8000	-313.48		77.5			311.49	0.00			390.99
BT2		2 552	2 624		12.87	2.00	103.2	0.00	79.38	-	-	0.00	0.00	-
BT2				63	4.85		81.5			0.26	-3.00			76.64
BT2				125	3.93		90.2			1.05	5.85			86.28
BT2				250	5.18		95.8			2.62	8.60			90.60
BT2				500	-0.08		98.3			4.99	14.00			98.37
BT2				1000	3.69		97.8			9.71	5.00			94.09
BT2				2000	-10.75		94.1			25.45	0.00			104.83
BT2				4000	-78.07		87.4			86.07	0.00			165.45
BT2				8000	-308.89		77.5			307.03	0.00			386.41

To be continued on next page...

## DECIBEL - Detailed results

**Calculation:** DIURNO **Noise calculation model:** ISO 9613-2 General

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### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT3		2 981	3 036		<b>11.11</b>	2.00	103.2	0.00	80.65	-	-	0.00	0.00	-
BT3				63	<b>3.54</b>		81.5			0.30	-3.00			77.95
BT3				125	<b>2.50</b>		90.2			1.21	5.85			87.71
BT3				250	<b>3.50</b>		95.8			3.04	8.60			92.28
BT3				500	<b>-2.13</b>		98.3			5.77	14.00			100.41
BT3				1000	<b>0.90</b>		97.8			11.23	5.00			96.88
BT3				2000	<b>-16.02</b>		94.1			29.45	0.00			110.10
BT3				4000	<b>-92.85</b>		87.4			99.58	0.00			180.23
BT3				8000	<b>-358.35</b>		77.5			355.21	0.00			435.86
BT4		3 278	3 327		<b>10.00</b>	2.00	103.2	0.00	81.44	-	-	0.00	0.00	-
BT4				63	<b>2.72</b>		81.5			0.33	-3.00			78.77
BT4				125	<b>1.58</b>		90.2			1.33	5.85			88.62
BT4				250	<b>2.42</b>		95.8			3.33	8.60			93.37
BT4				500	<b>-3.48</b>		98.3			6.32	14.00			101.76
BT4				1000	<b>-0.98</b>		97.8			12.31	5.00			98.75
BT4				2000	<b>-19.64</b>		94.1			32.28	0.00			113.72
BT4				4000	<b>-103.20</b>		87.4			109.14	0.00			190.58
BT4				8000	<b>-393.23</b>		77.5			389.30	0.00			470.74
BT5		3 680	3 736		<b>8.69</b>	2.00	103.2	0.00	82.45	-	-	0.00	0.00	-
BT5				63	<b>1.93</b>		81.5			0.37	-3.26			79.56
BT5				125	<b>0.41</b>		90.2			1.49	5.85			89.79
BT5				250	<b>1.00</b>		95.8			3.74	8.60			94.78
BT5				500	<b>-5.26</b>		98.3			7.10	14.00			103.54
BT5				1000	<b>-3.49</b>		97.8			13.82	5.00			101.27
BT5				2000	<b>-24.60</b>		94.1			36.23	0.00			118.68
BT5				4000	<b>-117.59</b>		87.4			122.52	0.00			204.97
BT5				8000	<b>-441.99</b>		77.5			437.05	0.00			519.50
BT6		4 313	4 354		<b>7.02</b>	2.00	103.2	0.00	83.78	-	-	0.00	0.00	-
BT6				63	<b>0.94</b>		81.5			0.44	-3.66			80.55
BT6				125	<b>-1.16</b>		90.2			1.74	5.85			91.37
BT6				250	<b>-0.95</b>		95.8			4.35	8.60			96.73
BT6				500	<b>-7.77</b>		98.3			8.27	14.00			106.05
BT6				1000	<b>-7.11</b>		97.8			16.11	5.00			104.89
BT6				2000	<b>-31.93</b>		94.1			42.23	0.00			126.01
BT6				4000	<b>-139.21</b>		87.4			142.81	0.00			226.59
BT6				8000	<b>-515.68</b>		77.5			509.41	0.00			593.19
BT7		4 661	4 700		<b>6.19</b>	2.00	103.2	0.00	84.44	-	-	0.00	0.00	-
BT7				63	<b>0.42</b>		81.5			0.47	-3.84			81.07
BT7				125	<b>-1.97</b>		90.2			1.88	5.85			92.17
BT7				250	<b>-1.95</b>		95.8			4.70	8.60			97.74
BT7				500	<b>-9.09</b>		98.3			8.93	14.00			107.37
BT7				1000	<b>-9.05</b>		97.8			17.39	5.00			106.83
BT7				2000	<b>-35.95</b>		94.1			45.59	0.00			130.03
BT7				4000	<b>-151.21</b>		87.4			154.14	0.00			238.59
BT7				8000	<b>-556.78</b>		77.5			549.85	0.00			634.29
Sum					<b>18.89</b>									
Sum				63	<b>39.68</b>									
Sum				125	<b>28.34</b>									
Sum				250	<b>21.79</b>									
Sum				500	<b>10.72</b>									
Sum				1000	<b>10.65</b>									
Sum				2000	<b>-6.20</b>									
Sum				4000	<b>-74.61</b>									
Sum				8000	<b>-304.50</b>									

- Data undefined due to calculation with octave data

Wind speed: 8.0 m/s

### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT1		2 614	2 662		<b>15.55</b>	2.00	106.0	0.00	79.51	-	-	0.00	0.00	-
BT1				63	<b>7.62</b>		84.4			0.27	-3.00			76.77
BT1				125	<b>6.69</b>		93.1			1.06	5.85			86.42

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## DECIBEL - Detailed results

**Calculation:** DIURNO **Noise calculation model:** ISO 9613-2 General

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### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT1				250	7.89		98.7			2.66	8.60			90.77
BT1				500	2.58		101.1			5.06	14.00			98.56
BT1				1000	6.16		100.5			9.85	5.00			94.36
BT1				2000	-8.55		96.8			25.82	0.00			105.33
BT1				4000	-76.85		90.0			87.32	0.00			166.83
BT1				8000	-310.99		80.0			311.49	0.00			390.99
BT2	2 552	2 624			15.73	2.00	106.0	0.00	79.38	-	-	0.00	0.00	-
BT2				63	7.75		84.4			0.26	-3.00			76.64
BT2				125	6.83		93.1			1.05	5.85			86.28
BT2				250	8.05		98.7			2.62	8.60			90.60
BT2				500	2.78		101.1			4.99	14.00			98.37
BT2				1000	6.43		100.5			9.71	5.00			94.09
BT2				2000	-8.05		96.8			25.45	0.00			104.83
BT2				4000	-75.47		90.0			86.07	0.00			165.45
BT2				8000	-306.40		80.0			307.03	0.00			386.41
BT3	2 981	3 036			13.97	2.00	106.0	0.00	80.65	-	-	0.00	0.00	-
BT3				63	6.44		84.4			0.30	-3.00			77.95
BT3				125	5.40		93.1			1.21	5.85			87.71
BT3				250	6.37		98.7			3.04	8.60			92.28
BT3				500	0.73		101.1			5.77	14.00			100.41
BT3				1000	3.63		100.5			11.23	5.00			96.88
BT3				2000	-13.32		96.8			29.45	0.00			110.10
BT3				4000	-90.25		90.0			99.58	0.00			180.23
BT3				8000	-355.86		80.0			355.21	0.00			435.86
BT4	3 278	3 327			12.87	2.00	106.0	0.00	81.44	-	-	0.00	0.00	-
BT4				63	5.62		84.4			0.33	-3.00			78.77
BT4				125	4.48		93.1			1.33	5.85			88.62
BT4				250	5.28		98.7			3.33	8.60			93.37
BT4				500	-0.62		101.1			6.32	14.00			101.76
BT4				1000	1.76		100.5			12.31	5.00			98.75
BT4				2000	-16.94		96.8			32.28	0.00			113.72
BT4				4000	-100.60		90.0			109.14	0.00			190.58
BT4				8000	-390.74		80.0			389.30	0.00			470.74
BT5	3 680	3 736			11.57	2.00	106.0	0.00	82.45	-	-	0.00	0.00	-
BT5				63	4.83		84.4			0.37	-3.26			79.56
BT5				125	3.31		93.1			1.49	5.85			89.79
BT5				250	3.87		98.7			3.74	8.60			94.78
BT5				500	-2.40		101.1			7.10	14.00			103.54
BT5				1000	-0.75		100.5			13.82	5.00			101.27
BT5				2000	-21.90		96.8			36.23	0.00			118.68
BT5				4000	-114.99		90.0			122.52	0.00			204.97
BT5				8000	-439.50		80.0			437.05	0.00			519.50
BT6	4 313	4 354			9.90	2.00	106.0	0.00	83.78	-	-	0.00	0.00	-
BT6				63	3.84		84.4			0.44	-3.66			80.55
BT6				125	1.74		93.1			1.74	5.85			91.37
BT6				250	1.92		98.7			4.35	8.60			96.73
BT6				500	-4.90		101.1			8.27	14.00			106.05
BT6				1000	-4.37		100.5			16.11	5.00			104.89
BT6				2000	-29.23		96.8			42.23	0.00			126.01
BT6				4000	-136.61		90.0			142.81	0.00			226.59
BT6				8000	-513.19		80.0			509.41	0.00			593.19
BT7	4 661	4 700			9.07	2.00	106.0	0.00	84.44	-	-	0.00	0.00	-
BT7				63	3.32		84.4			0.47	-3.84			81.07
BT7				125	0.93		93.1			1.88	5.85			92.17
BT7				250	0.91		98.7			4.70	8.60			97.74
BT7				500	-6.22		101.1			8.93	14.00			107.37
BT7				1000	-6.32		100.5			17.39	5.00			106.83
BT7				2000	-33.25		96.8			45.59	0.00			130.03
BT7				4000	-148.61		90.0			154.14	0.00			238.59
BT7				8000	-554.29		80.0			549.85	0.00			634.29
Sum					21.76									
Sum				63	42.58									
Sum				125	31.24									

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## DECIBEL - Detailed results

**Calculation:** DIURNO **Noise calculation model:** ISO 9613-2 General

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### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
Sum				250	24.66									
Sum				500	13.59									
Sum				1000	13.39									
Sum				2000	-3.50									
Sum				4000	-72.01									
Sum				8000	-302.01									

- Data undefined due to calculation with octave data

Wind speed: 9.0 m/s

### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT1		2 614	2 662	63	16.50	2.00	106.9	0.00	79.51	-	-	0.00	0.00	-
BT1				125	8.62		85.4			0.27	-3.00			76.77
BT1				250	7.63		94.1			1.06	5.85			86.42
BT1				500	8.82		99.6			2.66	8.60			90.77
BT1				1000	3.48		102.0			5.06	14.00			98.56
BT1				2000	7.06		101.4			9.85	5.00			94.36
BT1				4000	-7.75		97.6			25.82	0.00			105.33
BT1				8000	-76.06		90.8			87.32	0.00			166.83
BT1					-310.31		80.7			311.49	0.00			390.99
BT2		2 552	2 624	63	16.67	2.00	106.9	0.00	79.38	-	-	0.00	0.00	-
BT2				125	8.75		85.4			0.26	-3.00			76.64
BT2				250	7.77		94.1			1.05	5.85			86.28
BT2				500	8.98		99.6			2.62	8.60			90.60
BT2				1000	3.68		102.0			4.99	14.00			98.37
BT2				2000	7.33		101.4			9.71	5.00			94.09
BT2				4000	-7.25		97.6			25.45	0.00			104.83
BT2				8000	-74.69		90.8			86.07	0.00			165.45
BT2					-305.73		80.7			307.03	0.00			386.41
BT3		2 981	3 036	63	14.92	2.00	106.9	0.00	80.65	-	-	0.00	0.00	-
BT3				125	7.44		85.4			0.30	-3.00			77.95
BT3				250	6.34		94.1			1.21	5.85			87.71
BT3				500	7.30		99.6			3.04	8.60			92.28
BT3				1000	1.63		102.0			5.77	14.00			100.41
BT3				2000	4.53		101.4			11.23	5.00			96.88
BT3				4000	-12.52		97.6			29.45	0.00			110.10
BT3				8000	-89.46		90.8			99.58	0.00			180.23
BT3					-355.18		80.7			355.21	0.00			435.86
BT4		3 278	3 327	63	13.82	2.00	106.9	0.00	81.44	-	-	0.00	0.00	-
BT4				125	6.62		85.4			0.33	-3.00			78.77
BT4				250	5.43		94.1			1.33	5.85			88.62
BT4				500	6.22		99.6			3.33	8.60			93.37
BT4				1000	0.28		102.0			6.32	14.00			101.76
BT4				2000	2.66		101.4			12.31	5.00			98.75
BT4				4000	-16.14		97.6			32.28	0.00			113.72
BT4				8000	-99.81		90.8			109.14	0.00			190.58
BT4					-390.07		80.7			389.30	0.00			470.74
BT5		3 680	3 736	63	12.52	2.00	106.9	0.00	82.45	-	-	0.00	0.00	-
BT5				125	5.83		85.4			0.37	-3.26			79.56
BT5				250	4.26		94.1			1.49	5.85			89.79
BT5				500	4.80		99.6			3.74	8.60			94.78
BT5				1000	-1.50		102.0			7.10	14.00			103.54
BT5				2000	0.15		101.4			13.82	5.00			101.27
BT5				4000	-21.10		97.6			36.23	0.00			118.68
BT5				8000	-114.21		90.8			122.52	0.00			204.97
BT5					-438.82		80.7			437.05	0.00			519.50
BT6		4 313	4 354	63	10.85	2.00	106.9	0.00	83.78	-	-	0.00	0.00	-
BT6				125	4.84		85.4			0.44	-3.66			80.55
BT6				250	2.68		94.1			1.74	5.85			91.37
BT6				500	2.85		99.6			4.35	8.60			96.73
BT6				1000	-4.00		102.0			8.27	14.00			106.05
BT6					-3.47		101.4			16.11	5.00			104.89

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**DECIBEL - Detailed results****Calculation:** DIURNO **Noise calculation model:** ISO 9613-2 General

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**WTG**

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT6				2000	-28.43		97.6			42.23	0.00			126.01
BT6				4000	-135.82		90.8			142.81	0.00			226.59
BT6				8000	-512.51		80.7			509.41	0.00			593.19
BT7		4 661	4 700		10.03	2.00	106.9	0.00	84.44	-	-	0.00	0.00	-
BT7				63	4.32		85.4			0.47	-3.84			81.07
BT7				125	1.88		94.1			1.88	5.85			92.17
BT7				250	1.85		99.6			4.70	8.60			97.74
BT7				500	-5.32		102.0			8.93	14.00			107.37
BT7				1000	-5.42		101.4			17.39	5.00			106.83
BT7				2000	-32.45		97.6			45.59	0.00			130.03
BT7				4000	-147.82		90.8			154.14	0.00			238.59
BT7				8000	-553.61		80.7			549.85	0.00			634.29
Sum					22.70									
Sum				63	43.58									
Sum				125	32.19									
Sum				250	25.59									
Sum				500	14.49									
Sum				1000	14.29									
Sum				2000	-2.70									
Sum				4000	-71.22									
Sum				8000	-301.33									

- Data undefined due to calculation with octave data

Wind speed: 10.0 m/s

**WTG**

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT1		2 614	2 662		16.46	2.00	106.9	0.00	79.51	-	-	0.00	0.00	-
BT1				63	8.52		85.3			0.27	-3.00			76.77
BT1				125	7.60		94.0			1.06	5.85			86.42
BT1				250	8.79		99.6			2.66	8.60			90.77
BT1				500	3.48		102.0			5.06	14.00			98.56
BT1				1000	7.06		101.4			9.85	5.00			94.36
BT1				2000	-7.65		97.7			25.82	0.00			105.33
BT1				4000	-75.96		90.9			87.32	0.00			166.83
BT1				8000	-310.18		80.8			311.49	0.00			390.99
BT2		2 552	2 624		16.63	2.00	106.9	0.00	79.38	-	-	0.00	0.00	-
BT2				63	8.65		85.3			0.26	-3.00			76.64
BT2				125	7.74		94.0			1.05	5.85			86.28
BT2				250	8.95		99.6			2.62	8.60			90.60
BT2				500	3.68		102.0			4.99	14.00			98.37
BT2				1000	7.33		101.4			9.71	5.00			94.09
BT2				2000	-7.15		97.7			25.45	0.00			104.83
BT2				4000	-74.59		90.9			86.07	0.00			165.45
BT2				8000	-305.59		80.8			307.03	0.00			386.41
BT3		2 981	3 036		14.88	2.00	106.9	0.00	80.65	-	-	0.00	0.00	-
BT3				63	7.34		85.3			0.30	-3.00			77.95
BT3				125	6.31		94.0			1.21	5.85			87.71
BT3				250	7.27		99.6			3.04	8.60			92.28
BT3				500	1.63		102.0			5.77	14.00			100.41
BT3				1000	4.53		101.4			11.23	5.00			96.88
BT3				2000	-12.42		97.7			29.45	0.00			110.10
BT3				4000	-89.36		90.9			99.58	0.00			180.23
BT3				8000	-355.05		80.8			355.21	0.00			435.86
BT4		3 278	3 327		13.77	2.00	106.9	0.00	81.44	-	-	0.00	0.00	-
BT4				63	6.52		85.3			0.33	-3.00			78.77
BT4				125	5.40		94.0			1.33	5.85			88.62
BT4				250	6.18		99.6			3.33	8.60			93.37
BT4				500	0.28		102.0			6.32	14.00			101.76
BT4				1000	2.66		101.4			12.31	5.00			98.75
BT4				2000	-16.04		97.7			32.28	0.00			113.72
BT4				4000	-99.71		90.9			109.14	0.00			190.58
BT4				8000	-389.93		80.8			389.30	0.00			470.74

To be continued on next page...

## DECIBEL - Detailed results

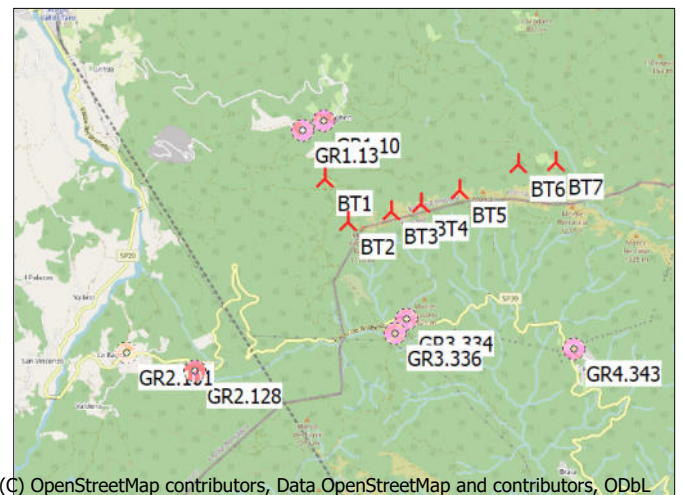
**Calculation:** DIURNO **Noise calculation model:** ISO 9613-2 General

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### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT5		3 680	3 736		<b>12.47</b>	2.00	106.9	0.00	82.45	-	-	0.00	0.00	-
BT5				63	<b>5.73</b>		85.3			0.37	-3.26			79.56
BT5				125	<b>4.23</b>		94.0			1.49	5.85			89.79
BT5				250	<b>4.77</b>		99.6			3.74	8.60			94.78
BT5				500	<b>-1.50</b>		102.0			7.10	14.00			103.54
BT5				1000	<b>0.15</b>		101.4			13.82	5.00			101.27
BT5				2000	<b>-21.00</b>		97.7			36.23	0.00			118.68
BT5				4000	<b>-114.11</b>		90.9			122.52	0.00			204.97
BT5				8000	<b>-438.69</b>		80.8			437.05	0.00			519.50
BT6		4 313	4 354		<b>10.80</b>	2.00	106.9	0.00	83.78	-	-	0.00	0.00	-
BT6				63	<b>4.74</b>		85.3			0.44	-3.66			80.55
BT6				125	<b>2.65</b>		94.0			1.74	5.85			91.37
BT6				250	<b>2.82</b>		99.6			4.35	8.60			96.73
BT6				500	<b>-4.00</b>		102.0			8.27	14.00			106.05
BT6				1000	<b>-3.47</b>		101.4			16.11	5.00			104.89
BT6				2000	<b>-28.33</b>		97.7			42.23	0.00			126.01
BT6				4000	<b>-135.72</b>		90.9			142.81	0.00			226.59
BT6				8000	<b>-512.38</b>		80.8			509.41	0.00			593.19
BT7		4 661	4 700		<b>9.97</b>	2.00	106.9	0.00	84.44	-	-	0.00	0.00	-
BT7				63	<b>4.22</b>		85.3			0.47	-3.84			81.07
BT7				125	<b>1.85</b>		94.0			1.88	5.85			92.17
BT7				250	<b>1.81</b>		99.6			4.70	8.60			97.74
BT7				500	<b>-5.32</b>		102.0			8.93	14.00			107.37
BT7				1000	<b>-5.42</b>		101.4			17.39	5.00			106.83
BT7				2000	<b>-32.35</b>		97.7			45.59	0.00			130.03
BT7				4000	<b>-147.72</b>		90.9			154.14	0.00			238.59
BT7				8000	<b>-553.48</b>		80.8			549.85	0.00			634.29
Sum					<b>22.66</b>									
Sum				63	<b>43.48</b>									
Sum				125	<b>32.16</b>									
Sum				250	<b>25.56</b>									
Sum				500	<b>14.49</b>									
Sum				1000	<b>14.29</b>									
Sum				2000	<b>-2.60</b>									
Sum				4000	<b>-71.12</b>									
Sum				8000	<b>-301.20</b>									

- Data undefined due to calculation with octave data



New WTG



Scale 1:75 000  
Noise sensitive area

## DECIBEL - Detailed results

Calculation: DIURNO Noise calculation model: ISO 9613-2 General

Noise sensitive area: GR2.128 Valdena

Wind speed: 3.0 m/s

WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT1		2 292	2 336	63	3.81	2.00	93.2	0.00	78.37	-	-	0.00	0.00	-
BT1				125	-5.09		70.5			0.23	-3.00			75.60
BT1				250	-5.78		79.4			0.93	5.85			85.15
BT1				500	-4.10		85.2			2.34	8.60			89.31
BT1				1000	-8.72		88.1			4.44	14.00			96.81
BT1				2000	-4.02		88.0			8.64	5.00			92.02
BT1				4000	-16.20		84.8			22.66	0.00			101.03
BT1				8000	-76.35		78.7			76.63	0.00			155.01
BT1					-282.28		69.5			273.36	0.00			351.73
BT2	2 112	2 186		63	4.65	2.00	93.2	0.00	77.79	-	-	0.00	0.00	-
BT2				125	-4.49		70.5			0.22	-3.00			75.01
BT2				250	-5.14		79.4			0.87	5.85			84.51
BT2				500	-3.37		85.2			2.19	8.60			88.58
BT2				1000	-7.86		88.1			4.15	14.00			95.94
BT2				2000	-2.88		88.0			8.09	5.00			90.88
BT2				4000	-14.16		84.8			21.20	0.00			98.99
BT2				8000	-70.82		78.7			71.69	0.00			149.48
BT2					-264.05		69.5			255.71	0.00			333.50
BT3	2 507	2 562		63	2.66	2.00	93.2	0.00	79.17	-	-	0.00	0.00	-
BT3				125	-5.91		70.5			0.26	-3.00			76.43
BT3				250	-6.67		79.4			1.02	5.85			86.05
BT3				500	-5.13		85.2			2.56	8.60			90.33
BT3				1000	-9.95		88.1			4.87	14.00			98.04
BT3				2000	-5.66		88.0			9.48	5.00			93.65
BT3				4000	-19.19		84.8			24.85	0.00			104.02
BT3				8000	-84.55		78.7			84.04	0.00			163.21
BT3					-309.49		69.5			299.77	0.00			378.94
BT4	2 788	2 836		63	1.39	2.00	93.2	0.00	80.05	-	-	0.00	0.00	-
BT4				125	-6.82		70.5			0.28	-3.00			77.34
BT4				250	-7.66		79.4			1.13	5.85			87.04
BT4				500	-6.28		85.2			2.84	8.60			91.49
BT4				1000	-11.35		88.1			5.39	14.00			99.44
BT4				2000	-7.55		88.0			10.49	5.00			95.54
BT4				4000	-22.73		84.8			27.51	0.00			107.56
BT4				8000	-94.40		78.7			93.01	0.00			173.06
BT4					-342.37		69.5			331.77	0.00			411.82
BT5	3 177	3 232		63	-0.24	2.00	93.2	0.00	81.19	-	-	0.00	0.00	-
BT5				125	-7.99		70.5			0.32	-3.00			78.51
BT5				250	-8.96		79.4			1.29	5.85			88.33
BT5				500	-7.81		85.2			3.23	8.60			93.02
BT5				1000	-13.24		88.1			6.14	14.00			101.33
BT5				2000	-10.15		88.0			11.96	5.00			98.15
BT5				4000	-27.71		84.8			31.35	0.00			112.54
BT5				8000	-108.54		78.7			106.01	0.00			187.20
BT5					-389.88		69.5			378.14	0.00			459.33
BT6	3 802	3 841		63	-2.28	2.00	93.2	0.00	82.69	-	-	0.00	0.00	-
BT6				125	-9.21		70.5			0.38	-3.35			79.72
BT6				250	-10.70		79.4			1.54	5.85			90.07
BT6				500	-9.92		85.2			3.84	8.60			95.13
BT6				1000	-15.90		88.1			7.30	14.00			103.99
BT6				2000	-13.91		88.0			14.21	5.00			101.90
BT6				4000	-35.12		84.8			37.26	0.00			119.95
BT6				8000	-130.02		78.7			125.99	0.00			208.67
BT6					-462.64		69.5			449.40	0.00			532.09
BT7	4 133	4 169		63	-3.21	2.00	93.2	0.00	83.40	-	-	0.00	0.00	-
BT7				125	-9.74		70.5			0.42	-3.56			80.26
BT7				250	-11.54		79.4			1.67	5.85			90.92
BT7				500	-10.96		85.2			4.17	8.60			96.17
BT7				1000	-17.23		88.1			7.92	14.00			105.32
BT7				2000	-15.83		88.0			15.43	5.00			103.83
BT7				4000	-39.01		84.8			40.44	0.00			123.84
BT7				8000	-141.49		78.7			136.75	0.00			220.15

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## DECIBEL - Detailed results

**Calculation:** DIURNO **Noise calculation model:** ISO 9613-2 General

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### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT7				8000	<b>-501.73</b>		69.5			487.78	0.00			571.18
Sum					<b>10.24</b>									
Sum				63	<b>30.00</b>									
Sum				125	<b>19.03</b>									
Sum				250	<b>13.00</b>									
Sum				500	<b>2.72</b>									
Sum				1000	<b>3.82</b>									
Sum				2000	<b>-10.07</b>									
Sum				4000	<b>-68.59</b>									
Sum				8000	<b>-260.88</b>									

- Data undefined due to calculation with octave data

Wind speed: 4.0 m/s

### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT1		2 292	2 336		<b>4.38</b>	2.00	93.6	0.00	78.37	-	-	0.00	0.00	-
BT1				63	<b>-4.31</b>		71.3			0.23	-3.00			75.60
BT1				125	<b>-5.08</b>		80.1			0.93	5.85			85.15
BT1				250	<b>-3.50</b>		85.8			2.34	8.60			89.31
BT1				500	<b>-8.22</b>		88.6			4.44	14.00			96.81
BT1				1000	<b>-3.71</b>		88.3			8.64	5.00			92.02
BT1				2000	<b>-16.06</b>		85.0			22.66	0.00			101.03
BT1				4000	<b>-76.28</b>		78.7			76.63	0.00			155.01
BT1				8000	<b>-282.33</b>		69.4			273.36	0.00			351.73
BT2		2 112	2 186		<b>5.20</b>	2.00	93.6	0.00	77.79	-	-	0.00	0.00	-
BT2				63	<b>-3.72</b>		71.3			0.22	-3.00			75.01
BT2				125	<b>-4.44</b>		80.1			0.87	5.85			84.51
BT2				250	<b>-2.77</b>		85.8			2.19	8.60			88.58
BT2				500	<b>-7.36</b>		88.6			4.15	14.00			95.94
BT2				1000	<b>-2.57</b>		88.3			8.09	5.00			90.88
BT2				2000	<b>-14.02</b>		85.0			21.20	0.00			98.99
BT2				4000	<b>-70.75</b>		78.7			71.69	0.00			149.48
BT2				8000	<b>-264.10</b>		69.4			255.71	0.00			333.50
BT3		2 507	2 562		<b>3.24</b>	2.00	93.6	0.00	79.17	-	-	0.00	0.00	-
BT3				63	<b>-5.14</b>		71.3			0.26	-3.00			76.43
BT3				125	<b>-5.97</b>		80.1			1.02	5.85			86.05
BT3				250	<b>-4.53</b>		85.8			2.56	8.60			90.33
BT3				500	<b>-9.45</b>		88.6			4.87	14.00			98.04
BT3				1000	<b>-5.35</b>		88.3			9.48	5.00			93.65
BT3				2000	<b>-19.05</b>		85.0			24.85	0.00			104.02
BT3				4000	<b>-84.48</b>		78.7			84.04	0.00			163.21
BT3				8000	<b>-309.54</b>		69.4			299.77	0.00			378.94
BT4		2 788	2 836		<b>1.99</b>	2.00	93.6	0.00	80.05	-	-	0.00	0.00	-
BT4				63	<b>-6.05</b>		71.3			0.28	-3.00			77.34
BT4				125	<b>-6.96</b>		80.1			1.13	5.85			87.04
BT4				250	<b>-5.68</b>		85.8			2.84	8.60			91.49
BT4				500	<b>-10.85</b>		88.6			5.39	14.00			99.44
BT4				1000	<b>-7.24</b>		88.3			10.49	5.00			95.54
BT4				2000	<b>-22.58</b>		85.0			27.51	0.00			107.56
BT4				4000	<b>-94.33</b>		78.7			93.01	0.00			173.06
BT4				8000	<b>-342.42</b>		69.4			331.77	0.00			411.82
BT5		3 177	3 232		<b>0.37</b>	2.00	93.6	0.00	81.19	-	-	0.00	0.00	-
BT5				63	<b>-7.22</b>		71.3			0.32	-3.00			78.51
BT5				125	<b>-8.26</b>		80.1			1.29	5.85			88.33
BT5				250	<b>-7.21</b>		85.8			3.23	8.60			93.02
BT5				500	<b>-12.74</b>		88.6			6.14	14.00			101.33
BT5				1000	<b>-9.84</b>		88.3			11.96	5.00			98.15
BT5				2000	<b>-27.56</b>		85.0			31.35	0.00			112.54
BT5				4000	<b>-108.47</b>		78.7			106.01	0.00			187.20
BT5				8000	<b>-389.93</b>		69.4			378.14	0.00			459.33
BT6		3 802	3 841		<b>-1.63</b>	2.00	93.6	0.00	82.69	-	-	0.00	0.00	-
BT6				63	<b>-8.43</b>		71.3			0.38	-3.35			79.72

To be continued on next page...

Project:

**230515 Modello Borgo Taro per acustica**

Licensed user:

**MORI MANTOVANI ASSOCIATI SRL**

VIA STRASBURGO 18A

IT-43123 PARMA

+390521239944

GIULIO BARTOLI / giulio@morimantovani.it

Calculated:

02/06/2023 12:50/3.6.366

## DECIBEL - Detailed results

**Calculation: DIURNO Noise calculation model: ISO 9613-2 General**

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**WTG**

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT6				125	<b>-10.00</b>		80.1			1.54	5.85			90.07
BT6				250	<b>-9.32</b>		85.8			3.84	8.60			95.13
BT6				500	<b>-15.40</b>		88.6			7.30	14.00			103.99
BT6				1000	<b>-13.60</b>		88.3			14.21	5.00			101.90
BT6				2000	<b>-34.97</b>		85.0			37.26	0.00			119.95
BT6				4000	<b>-129.95</b>		78.7			125.99	0.00			208.67
BT6				8000	<b>-462.68</b>		69.4			449.40	0.00			532.09
BT7		4 133	4 169		<b>-2.55</b>	2.00	93.6	0.00	83.40	-	-	0.00	0.00	-
BT7				63	<b>-8.97</b>		71.3			0.42	-3.56			80.26
BT7				125	<b>-10.84</b>		80.1			1.67	5.85			90.92
BT7				250	<b>-10.36</b>		85.8			4.17	8.60			96.17
BT7				500	<b>-16.73</b>		88.6			7.92	14.00			105.32
BT7				1000	<b>-15.52</b>		88.3			15.43	5.00			103.83
BT7				2000	<b>-38.86</b>		85.0			40.44	0.00			123.84
BT7				4000	<b>-141.42</b>		78.7			136.75	0.00			220.15
BT7				8000	<b>-501.78</b>		69.4			487.78	0.00			571.18
Sum					<b>10.82</b>									
Sum				63	<b>30.78</b>									
Sum				125	<b>19.73</b>									
Sum				250	<b>13.60</b>									
Sum				500	<b>3.22</b>									
Sum				1000	<b>4.13</b>									
Sum				2000	<b>-9.93</b>									
Sum				4000	<b>-68.52</b>									
Sum				8000	<b>-260.93</b>									

- Data undefined due to calculation with octave data

Wind speed: 5.0 m/s

**WTG**

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT1		2 292	2 336		<b>7.46</b>	2.00	96.5	0.00	78.37	-	-	0.00	0.00	-
BT1				63	<b>-1.01</b>		74.6			0.23	-3.00			75.60
BT1				125	<b>-1.85</b>		83.3			0.93	5.85			85.15
BT1				250	<b>-0.38</b>		88.9			2.34	8.60			89.31
BT1				500	<b>-5.26</b>		91.6			4.44	14.00			96.81
BT1				1000	<b>-0.91</b>		91.1			8.64	5.00			92.02
BT1				2000	<b>-13.41</b>		87.6			22.66	0.00			101.03
BT1				4000	<b>-73.87</b>		81.1			76.63	0.00			155.01
BT1				8000	<b>-280.24</b>		71.5			273.36	0.00			351.73
BT2		2 112	2 186		<b>8.27</b>	2.00	96.5	0.00	77.79	-	-	0.00	0.00	-
BT2				63	<b>-0.42</b>		74.6			0.22	-3.00			75.01
BT2				125	<b>-1.21</b>		83.3			0.87	5.85			84.51
BT2				250	<b>0.35</b>		88.9			2.19	8.60			88.58
BT2				500	<b>-4.39</b>		91.6			4.15	14.00			95.94
BT2				1000	<b>0.23</b>		91.1			8.09	5.00			90.88
BT2				2000	<b>-11.37</b>		87.6			21.20	0.00			98.99
BT2				4000	<b>-68.34</b>		81.1			71.69	0.00			149.48
BT2				8000	<b>-262.01</b>		71.5			255.71	0.00			333.50
BT3		2 507	2 562		<b>6.34</b>	2.00	96.5	0.00	79.17	-	-	0.00	0.00	-
BT3				63	<b>-1.84</b>		74.6			0.26	-3.00			76.43
BT3				125	<b>-2.74</b>		83.3			1.02	5.85			86.05
BT3				250	<b>-1.40</b>		88.9			2.56	8.60			90.33
BT3				500	<b>-6.49</b>		91.6			4.87	14.00			98.04
BT3				1000	<b>-2.55</b>		91.1			9.48	5.00			93.65
BT3				2000	<b>-16.40</b>		87.6			24.85	0.00			104.02
BT3				4000	<b>-82.07</b>		81.1			84.04	0.00			163.21
BT3				8000	<b>-307.45</b>		71.5			299.77	0.00			378.94
BT4		2 788	2 836		<b>5.10</b>	2.00	96.5	0.00	80.05	-	-	0.00	0.00	-
BT4				63	<b>-2.75</b>		74.6			0.28	-3.00			77.34
BT4				125	<b>-3.73</b>		83.3			1.13	5.85			87.04
BT4				250	<b>-2.56</b>		88.9			2.84	8.60			91.49
BT4				500	<b>-7.89</b>		91.6			5.39	14.00			99.44

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Project:

**230515 Modello Borgo Taro per acustica**

Licensed user:

**MORI MANTOVANI ASSOCIATI SRL**

VIA STRASBURGO 18A

IT-43123 PARMA

+390521239944

GIULIO BARTOLI / giulio@morimantovani.it

Calculated:

02/06/2023 12:50/3.6.366

## DECIBEL - Detailed results

**Calculation: DIURNO Noise calculation model: ISO 9613-2 General**

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**WTG**

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT4				1000	<b>-4.44</b>		91.1			10.49	5.00			95.54
BT4				2000	<b>-19.94</b>		87.6			27.51	0.00			107.56
BT4				4000	<b>-91.92</b>		81.1			93.01	0.00			173.06
BT4				8000	<b>-340.33</b>		71.5			331.77	0.00			411.82
BT5		3 177	3 232		<b>3.51</b>	2.00	96.5	0.00	81.19	-	-	0.00	0.00	-
BT5				63	<b>-3.92</b>		74.6			0.32	-3.00			78.51
BT5				125	<b>-5.03</b>		83.3			1.29	5.85			88.33
BT5				250	<b>-4.09</b>		88.9			3.23	8.60			93.02
BT5				500	<b>-9.78</b>		91.6			6.14	14.00			101.33
BT5				1000	<b>-7.04</b>		91.1			11.96	5.00			98.15
BT5				2000	<b>-24.92</b>		87.6			31.35	0.00			112.54
BT5				4000	<b>-106.06</b>		81.1			106.01	0.00			187.20
BT5				8000	<b>-387.84</b>		71.5			378.14	0.00			459.33
BT6		3 802	3 841		<b>1.53</b>	2.00	96.5	0.00	82.69	-	-	0.00	0.00	-
BT6				63	<b>-5.13</b>		74.6			0.38	-3.35			79.72
BT6				125	<b>-6.77</b>		83.3			1.54	5.85			90.07
BT6				250	<b>-6.20</b>		88.9			3.84	8.60			95.13
BT6				500	<b>-12.44</b>		91.6			7.30	14.00			103.99
BT6				1000	<b>-10.80</b>		91.1			14.21	5.00			101.90
BT6				2000	<b>-32.32</b>		87.6			37.26	0.00			119.95
BT6				4000	<b>-127.54</b>		81.1			125.99	0.00			208.67
BT6				8000	<b>-460.60</b>		71.5			449.40	0.00			532.09
BT7		4 133	4 169		<b>0.63</b>	2.00	96.5	0.00	83.40	-	-	0.00	0.00	-
BT7				63	<b>-5.67</b>		74.6			0.42	-3.56			80.26
BT7				125	<b>-7.61</b>		83.3			1.67	5.85			90.92
BT7				250	<b>-7.24</b>		88.9			4.17	8.60			96.17
BT7				500	<b>-13.77</b>		91.6			7.92	14.00			105.32
BT7				1000	<b>-12.72</b>		91.1			15.43	5.00			103.83
BT7				2000	<b>-36.22</b>		87.6			40.44	0.00			123.84
BT7				4000	<b>-139.01</b>		81.1			136.75	0.00			220.15
BT7				8000	<b>-499.69</b>		71.5			487.78	0.00			571.18
Sum					<b>13.92</b>									
Sum				63	<b>34.08</b>									
Sum				125	<b>22.96</b>									
Sum				250	<b>16.73</b>									
Sum				500	<b>6.18</b>									
Sum				1000	<b>6.93</b>									
Sum				2000	<b>-7.28</b>									
Sum				4000	<b>-66.11</b>									
Sum				8000	<b>-258.84</b>									

- Data undefined due to calculation with octave data

Wind speed: 6.0 m/s

**WTG**

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT1		2 292	2 336		<b>11.03</b>	2.00	100.0	0.00	78.37	-	-	0.00	0.00	-
BT1				63	<b>2.62</b>		78.2			0.23	-3.00			75.60
BT1				125	<b>1.77</b>		86.9			0.93	5.85			85.15
BT1				250	<b>3.22</b>		92.5			2.34	8.60			89.31
BT1				500	<b>-1.73</b>		95.1			4.44	14.00			96.81
BT1				1000	<b>2.56</b>		94.6			8.64	5.00			92.02
BT1				2000	<b>-10.03</b>		91.0			22.66	0.00			101.03
BT1				4000	<b>-70.67</b>		84.3			76.63	0.00			155.01
BT1				8000	<b>-277.17</b>		74.6			273.36	0.00			351.73
BT2		2 112	2 186		<b>11.84</b>	2.00	100.0	0.00	77.79	-	-	0.00	0.00	-
BT2				63	<b>3.22</b>		78.2			0.22	-3.00			75.01
BT2				125	<b>2.41</b>		86.9			0.87	5.85			84.51
BT2				250	<b>3.95</b>		92.5			2.19	8.60			88.58
BT2				500	<b>-0.86</b>		95.1			4.15	14.00			95.94
BT2				1000	<b>3.70</b>		94.6			8.09	5.00			90.88
BT2				2000	<b>-7.99</b>		91.0			21.20	0.00			98.99
BT2				4000	<b>-65.14</b>		84.3			71.69	0.00			149.48

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## DECIBEL - Detailed results

**Calculation:** DIURNO **Noise calculation model:** ISO 9613-2 General

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### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT2				8000	<b>-258.94</b>		74.6			255.71	0.00			333.50
BT3		2 507	2 562		<b>9.92</b>	2.00	100.0	0.00	79.17	-	-	0.00	0.00	-
BT3				63	<b>1.80</b>		78.2			0.26	-3.00			76.43
BT3				125	<b>0.88</b>		86.9			1.02	5.85			86.05
BT3				250	<b>2.20</b>		92.5			2.56	8.60			90.33
BT3				500	<b>-2.96</b>		95.1			4.87	14.00			98.04
BT3				1000	<b>0.92</b>		94.6			9.48	5.00			93.65
BT3				2000	<b>-13.02</b>		91.0			24.85	0.00			104.02
BT3				4000	<b>-78.87</b>		84.3			84.04	0.00			163.21
BT3				8000	<b>-304.38</b>		74.6			299.77	0.00			378.94
BT4		2 788	2 836		<b>8.69</b>	2.00	100.0	0.00	80.05	-	-	0.00	0.00	-
BT4				63	<b>0.89</b>		78.2			0.28	-3.00			77.34
BT4				125	<b>-0.12</b>		86.9			1.13	5.85			87.04
BT4				250	<b>1.04</b>		92.5			2.84	8.60			91.49
BT4				500	<b>-4.36</b>		95.1			5.39	14.00			99.44
BT4				1000	<b>-0.97</b>		94.6			10.49	5.00			95.54
BT4				2000	<b>-16.56</b>		91.0			27.51	0.00			107.56
BT4				4000	<b>-88.72</b>		84.3			93.01	0.00			173.06
BT4				8000	<b>-337.27</b>		74.6			331.77	0.00			411.82
BT5		3 177	3 232		<b>7.10</b>	2.00	100.0	0.00	81.19	-	-	0.00	0.00	-
BT5				63	<b>-0.28</b>		78.2			0.32	-3.00			78.51
BT5				125	<b>-1.41</b>		86.9			1.29	5.85			88.33
BT5				250	<b>-0.49</b>		92.5			3.23	8.60			93.02
BT5				500	<b>-6.25</b>		95.1			6.14	14.00			101.33
BT5				1000	<b>-3.57</b>		94.6			11.96	5.00			98.15
BT5				2000	<b>-21.54</b>		91.0			31.35	0.00			112.54
BT5				4000	<b>-102.86</b>		84.3			106.01	0.00			187.20
BT5				8000	<b>-384.77</b>		74.6			378.14	0.00			459.33
BT6		3 802	3 841		<b>5.13</b>	2.00	100.0	0.00	82.69	-	-	0.00	0.00	-
BT6				63	<b>-1.49</b>		78.2			0.38	-3.35			79.72
BT6				125	<b>-3.15</b>		86.9			1.54	5.85			90.07
BT6				250	<b>-2.60</b>		92.5			3.84	8.60			95.13
BT6				500	<b>-8.91</b>		95.1			7.30	14.00			103.99
BT6				1000	<b>-7.32</b>		94.6			14.21	5.00			101.90
BT6				2000	<b>-28.95</b>		91.0			37.26	0.00			119.95
BT6				4000	<b>-124.34</b>		84.3			125.99	0.00			208.67
BT6				8000	<b>-457.53</b>		74.6			449.40	0.00			532.09
BT7		4 133	4 169		<b>4.23</b>	2.00	100.0	0.00	83.40	-	-	0.00	0.00	-
BT7				63	<b>-2.03</b>		78.2			0.42	-3.56			80.26
BT7				125	<b>-4.00</b>		86.9			1.67	5.85			90.92
BT7				250	<b>-3.64</b>		92.5			4.17	8.60			96.17
BT7				500	<b>-10.24</b>		95.1			7.92	14.00			105.32
BT7				1000	<b>-9.25</b>		94.6			15.43	5.00			103.83
BT7				2000	<b>-32.84</b>		91.0			40.44	0.00			123.84
BT7				4000	<b>-135.81</b>		84.3			136.75	0.00			220.15
BT7				8000	<b>-496.63</b>		74.6			487.78	0.00			571.18
Sum					<b>17.50</b>									
Sum				63	<b>37.72</b>									
Sum				125	<b>26.58</b>									
Sum				250	<b>20.33</b>									
Sum				500	<b>9.71</b>									
Sum				1000	<b>10.41</b>									
Sum				2000	<b>-3.90</b>									
Sum				4000	<b>-62.91</b>									
Sum				8000	<b>-255.78</b>									

- Data undefined due to calculation with octave data

Wind speed: 7.0 m/s

### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT1		2 292	2 336		<b>14.28</b>	2.00	103.2	0.00	78.37	-	-	0.00	0.00	-
BT1				63	<b>5.89</b>		81.5			0.23	-3.00			75.60

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## DECIBEL - Detailed results

**Calculation:** DIURNO **Noise calculation model:** ISO 9613-2 General

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### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT1				125	5.05		90.2			0.93	5.85			85.15
BT1				250	6.48		95.8			2.34	8.60			89.31
BT1				500	1.47		98.3			4.44	14.00			96.81
BT1				1000	5.76		97.8			8.64	5.00			92.02
BT1				2000	-6.95		94.1			22.66	0.00			101.03
BT1				4000	-67.63		87.4			76.63	0.00			155.01
BT1				8000	-274.22		77.5			273.36	0.00			351.73
BT2	2 112	2 186			15.08	2.00	103.2	0.00	77.79	-	-	0.00	0.00	-
BT2				63	6.48		81.5			0.22	-3.00			75.01
BT2				125	5.69		90.2			0.87	5.85			84.51
BT2				250	7.21		95.8			2.19	8.60			88.58
BT2				500	2.34		98.3			4.15	14.00			95.94
BT2				1000	6.90		97.8			8.09	5.00			90.88
BT2				2000	-4.91		94.1			21.20	0.00			98.99
BT2				4000	-62.10		87.4			71.69	0.00			149.48
BT2				8000	-255.99		77.5			255.71	0.00			333.50
BT3	2 507	2 562			13.16	2.00	103.2	0.00	79.17	-	-	0.00	0.00	-
BT3				63	5.06		81.5			0.26	-3.00			76.43
BT3				125	4.16		90.2			1.02	5.85			86.05
BT3				250	5.45		95.8			2.56	8.60			90.33
BT3				500	0.24		98.3			4.87	14.00			98.04
BT3				1000	4.12		97.8			9.48	5.00			93.65
BT3				2000	-9.94		94.1			24.85	0.00			104.02
BT3				4000	-75.83		87.4			84.04	0.00			163.21
BT3				8000	-301.43		77.5			299.77	0.00			378.94
BT4	2 788	2 836			11.93	2.00	103.2	0.00	80.05	-	-	0.00	0.00	-
BT4				63	4.15		81.5			0.28	-3.00			77.34
BT4				125	3.17		90.2			1.13	5.85			87.04
BT4				250	4.30		95.8			2.84	8.60			91.49
BT4				500	-1.16		98.3			5.39	14.00			99.44
BT4				1000	2.23		97.8			10.49	5.00			95.54
BT4				2000	-13.48		94.1			27.51	0.00			107.56
BT4				4000	-85.68		87.4			93.01	0.00			173.06
BT4				8000	-334.31		77.5			331.77	0.00			411.82
BT5	3 177	3 232			10.35	2.00	103.2	0.00	81.19	-	-	0.00	0.00	-
BT5				63	2.98		81.5			0.32	-3.00			78.51
BT5				125	1.87		90.2			1.29	5.85			88.33
BT5				250	2.76		95.8			3.23	8.60			93.02
BT5				500	-3.05		98.3			6.14	14.00			101.33
BT5				1000	-0.37		97.8			11.96	5.00			98.15
BT5				2000	-18.46		94.1			31.35	0.00			112.54
BT5				4000	-99.82		87.4			106.01	0.00			187.20
BT5				8000	-381.82		77.5			378.14	0.00			459.33
BT6	3 802	3 841			8.39	2.00	103.2	0.00	82.69	-	-	0.00	0.00	-
BT6				63	1.77		81.5			0.38	-3.35			79.72
BT6				125	0.13		90.2			1.54	5.85			90.07
BT6				250	0.66		95.8			3.84	8.60			95.13
BT6				500	-5.71		98.3			7.30	14.00			103.99
BT6				1000	-4.12		97.8			14.21	5.00			101.90
BT6				2000	-25.87		94.1			37.26	0.00			119.95
BT6				4000	-121.30		87.4			125.99	0.00			208.67
BT6				8000	-454.58		77.5			449.40	0.00			532.09
BT7	4 133	4 169			7.49	2.00	103.2	0.00	83.40	-	-	0.00	0.00	-
BT7				63	1.23		81.5			0.42	-3.56			80.26
BT7				125	-0.71		90.2			1.67	5.85			90.92
BT7				250	-0.38		95.8			4.17	8.60			96.17
BT7				500	-7.04		98.3			7.92	14.00			105.32
BT7				1000	-6.05		97.8			15.43	5.00			103.83
BT7				2000	-29.76		94.1			40.44	0.00			123.84
BT7				4000	-132.77		87.4			136.75	0.00			220.15
BT7				8000	-493.67		77.5			487.78	0.00			571.18
Sum					20.74									
Sum				63	40.98									

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## DECIBEL - Detailed results

**Calculation:** DIURNO **Noise calculation model:** ISO 9613-2 General

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### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
Sum				125	29.86									
Sum				250	23.58									
Sum				500	12.91									
Sum				1000	13.61									
Sum				2000	-0.82									
Sum				4000	-59.87									
Sum				8000	-252.82									

- Data undefined due to calculation with octave data

Wind speed: 8.0 m/s

### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT1		2 292	2 336	63	17.13	2.00	106.0	0.00	78.37	-	-	0.00	0.00	-
BT1				125	8.79		84.4			0.23	-3.00			75.60
BT1				250	7.95		93.1			0.93	5.85			85.15
BT1				500	9.35		98.7			2.34	8.60			89.31
BT1				1000	4.34		101.1			4.44	14.00			96.81
BT1				2000	8.50		100.5			8.64	5.00			92.02
BT1				4000	-4.25		96.8			22.66	0.00			101.03
BT1				8000	-65.03		90.0			76.63	0.00			155.01
BT1					-271.73		80.0			273.36	0.00			351.73
BT2		2 112	2 186	63	17.93	2.00	106.0	0.00	77.79	-	-	0.00	0.00	-
BT2				125	9.38		84.4			0.22	-3.00			75.01
BT2				250	8.59		93.1			0.87	5.85			84.51
BT2				500	10.08		98.7			2.19	8.60			88.58
BT2				1000	5.20		101.1			4.15	14.00			95.94
BT2				2000	9.64		100.5			8.09	5.00			90.88
BT2				4000	-2.21		96.8			21.20	0.00			98.99
BT2				8000	-59.50		90.0			71.69	0.00			149.48
BT2					-253.50		80.0			255.71	0.00			333.50
BT3		2 507	2 562	63	16.02	2.00	106.0	0.00	79.17	-	-	0.00	0.00	-
BT3				125	7.96		84.4			0.26	-3.00			76.43
BT3				250	7.06		93.1			1.02	5.85			86.05
BT3				500	8.32		98.7			2.56	8.60			90.33
BT3				1000	3.11		101.1			4.87	14.00			98.04
BT3				2000	6.86		100.5			9.48	5.00			93.65
BT3				4000	-7.24		96.8			24.85	0.00			104.02
BT3				8000	-73.23		90.0			84.04	0.00			163.21
BT3					-298.94		80.0			299.77	0.00			378.94
BT4		2 788	2 836	63	14.79	2.00	106.0	0.00	80.05	-	-	0.00	0.00	-
BT4				125	7.05		84.4			0.28	-3.00			77.34
BT4				250	6.07		93.1			1.13	5.85			87.04
BT4				500	7.16		98.7			2.84	8.60			91.49
BT4				1000	1.70		101.1			5.39	14.00			99.44
BT4				2000	4.97		100.5			10.49	5.00			95.54
BT4				4000	-10.78		96.8			27.51	0.00			107.56
BT4				8000	-83.08		90.0			93.01	0.00			173.06
BT4					-331.82		80.0			331.77	0.00			411.82
BT5		3 177	3 232	63	13.22	2.00	106.0	0.00	81.19	-	-	0.00	0.00	-
BT5				125	5.88		84.4			0.32	-3.00			78.51
BT5				250	4.77		93.1			1.29	5.85			88.33
BT5				500	5.63		98.7			3.23	8.60			93.02
BT5				1000	-0.18		101.1			6.14	14.00			101.33
BT5				2000	2.37		100.5			11.96	5.00			98.15
BT5				4000	-15.76		96.8			31.35	0.00			112.54
BT5				8000	-97.22		90.0			106.01	0.00			187.20
BT5					-379.33		80.0			378.14	0.00			459.33
BT6		3 802	3 841	63	11.26	2.00	106.0	0.00	82.69	-	-	0.00	0.00	-
BT6				125	4.67		84.4			0.38	-3.35			79.72
BT6				250	3.03		93.1			1.54	5.85			90.07
BT6				500	3.52		98.7			3.84	8.60			95.13
BT6					-2.84		101.1			7.30	14.00			103.99

To be continued on next page...

## DECIBEL - Detailed results

**Calculation:** DIURNO **Noise calculation model:** ISO 9613-2 General

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### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT6				1000	-1.39		100.5			14.21	5.00			101.90
BT6				2000	-23.17		96.8			37.26	0.00			119.95
BT6				4000	-118.70		90.0			125.99	0.00			208.67
BT6				8000	-452.09		80.0			449.40	0.00			532.09
BT7		4 133	4 169		10.37	2.00	106.0	0.00	83.40	-	-	0.00	0.00	-
BT7				63	4.13		84.4			0.42	-3.56			80.26
BT7				125	2.19		93.1			1.67	5.85			90.92
BT7				250	2.48		98.7			4.17	8.60			96.17
BT7				500	-4.18		101.1			7.92	14.00			105.32
BT7				1000	-3.31		100.5			15.43	5.00			103.83
BT7				2000	-27.06		96.8			40.44	0.00			123.84
BT7				4000	-130.17		90.0			136.75	0.00			220.15
BT7				8000	-491.18		80.0			487.78	0.00			571.18
Sum					23.60									
Sum				63	43.88									
Sum				125	32.76									
Sum				250	26.45									
Sum				500	15.77									
Sum				1000	16.34									
Sum				2000	1.88									
Sum				4000	-57.27									
Sum				8000	-250.33									

- Data undefined due to calculation with octave data

Wind speed: 9.0 m/s

### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT1		2 292	2 336		18.07	2.00	106.9	0.00	78.37	-	-	0.00	0.00	-
BT1				63	9.79		85.4			0.23	-3.00			75.60
BT1				125	8.90		94.1			0.93	5.85			85.15
BT1				250	10.28		99.6			2.34	8.60			89.31
BT1				500	5.24		102.0			4.44	14.00			96.81
BT1				1000	9.40		101.4			8.64	5.00			92.02
BT1				2000	-3.45		97.6			22.66	0.00			101.03
BT1				4000	-64.24		90.8			76.63	0.00			155.01
BT1				8000	-271.06		80.7			273.36	0.00			351.73
BT2		2 112	2 186		18.87	2.00	106.9	0.00	77.79	-	-	0.00	0.00	-
BT2				63	10.38		85.4			0.22	-3.00			75.01
BT2				125	9.54		94.1			0.87	5.85			84.51
BT2				250	11.01		99.6			2.19	8.60			88.58
BT2				500	6.10		102.0			4.15	14.00			95.94
BT2				1000	10.54		101.4			8.09	5.00			90.88
BT2				2000	-1.41		97.6			21.20	0.00			98.99
BT2				4000	-58.71		90.8			71.69	0.00			149.48
BT2				8000	-252.82		80.7			255.71	0.00			333.50
BT3		2 507	2 562		16.96	2.00	106.9	0.00	79.17	-	-	0.00	0.00	-
BT3				63	8.96		85.4			0.26	-3.00			76.43
BT3				125	8.01		94.1			1.02	5.85			86.05
BT3				250	9.25		99.6			2.56	8.60			90.33
BT3				500	4.01		102.0			4.87	14.00			98.04
BT3				1000	7.76		101.4			9.48	5.00			93.65
BT3				2000	-6.44		97.6			24.85	0.00			104.02
BT3				4000	-72.44		90.8			84.04	0.00			163.21
BT3				8000	-298.26		80.7			299.77	0.00			378.94
BT4		2 788	2 836		15.74	2.00	106.9	0.00	80.05	-	-	0.00	0.00	-
BT4				63	8.05		85.4			0.28	-3.00			77.34
BT4				125	7.02		94.1			1.13	5.85			87.04
BT4				250	8.10		99.6			2.84	8.60			91.49
BT4				500	2.60		102.0			5.39	14.00			99.44
BT4				1000	5.87		101.4			10.49	5.00			95.54
BT4				2000	-9.98		97.6			27.51	0.00			107.56
BT4				4000	-82.30		90.8			93.01	0.00			173.06

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## DECIBEL - Detailed results

**Calculation:** DIURNO **Noise calculation model:** ISO 9613-2 General

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### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT4				8000	<b>-331.15</b>		80.7			331.77	0.00			411.82
BT5		3 177	3 232		<b>14.17</b>	2.00	106.9	0.00	81.19	-	-	0.00	0.00	-
BT5				63	<b>6.88</b>		85.4			0.32	-3.00			78.51
BT5				125	<b>5.72</b>		94.1			1.29	5.85			88.33
BT5				250	<b>6.56</b>		99.6			3.23	8.60			93.02
BT5				500	<b>0.72</b>		102.0			6.14	14.00			101.33
BT5				1000	<b>3.27</b>		101.4			11.96	5.00			98.15
BT5				2000	<b>-14.96</b>		97.6			31.35	0.00			112.54
BT5				4000	<b>-96.43</b>		90.8			106.01	0.00			187.20
BT5				8000	<b>-378.65</b>		80.7			378.14	0.00			459.33
BT6		3 802	3 841		<b>12.22</b>	2.00	106.9	0.00	82.69	-	-	0.00	0.00	-
BT6				63	<b>5.67</b>		85.4			0.38	-3.35			79.72
BT6				125	<b>3.98</b>		94.1			1.54	5.85			90.07
BT6				250	<b>4.46</b>		99.6			3.84	8.60			95.13
BT6				500	<b>-1.94</b>		102.0			7.30	14.00			103.99
BT6				1000	<b>-0.49</b>		101.4			14.21	5.00			101.90
BT6				2000	<b>-22.37</b>		97.6			37.26	0.00			119.95
BT6				4000	<b>-117.91</b>		90.8			125.99	0.00			208.67
BT6				8000	<b>-451.41</b>		80.7			449.40	0.00			532.09
BT7		4 133	4 169		<b>11.33</b>	2.00	106.9	0.00	83.40	-	-	0.00	0.00	-
BT7				63	<b>5.13</b>		85.4			0.42	-3.56			80.26
BT7				125	<b>3.13</b>		94.1			1.67	5.85			90.92
BT7				250	<b>3.42</b>		99.6			4.17	8.60			96.17
BT7				500	<b>-3.28</b>		102.0			7.92	14.00			105.32
BT7				1000	<b>-2.41</b>		101.4			15.43	5.00			103.83
BT7				2000	<b>-26.26</b>		97.6			40.44	0.00			123.84
BT7				4000	<b>-129.38</b>		90.8			136.75	0.00			220.15
BT7				8000	<b>-490.51</b>		80.7			487.78	0.00			571.18
Sum					<b>24.54</b>									
Sum				63	<b>44.88</b>									
Sum				125	<b>33.71</b>									
Sum				250	<b>27.38</b>									
Sum				500	<b>16.67</b>									
Sum				1000	<b>17.24</b>									
Sum				2000	<b>2.68</b>									
Sum				4000	<b>-56.48</b>									
Sum				8000	<b>-249.66</b>									

- Data undefined due to calculation with octave data

Wind speed: 10.0 m/s

### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT1		2 292	2 336		<b>18.03</b>	2.00	106.9	0.00	78.37	-	-	0.00	0.00	-
BT1				63	<b>9.69</b>		85.3			0.23	-3.00			75.60
BT1				125	<b>8.87</b>		94.0			0.93	5.85			85.15
BT1				250	<b>10.25</b>		99.6			2.34	8.60			89.31
BT1				500	<b>5.24</b>		102.0			4.44	14.00			96.81
BT1				1000	<b>9.40</b>		101.4			8.64	5.00			92.02
BT1				2000	<b>-3.35</b>		97.7			22.66	0.00			101.03
BT1				4000	<b>-64.14</b>		90.9			76.63	0.00			155.01
BT1				8000	<b>-270.92</b>		80.8			273.36	0.00			351.73
BT2		2 112	2 186		<b>18.83</b>	2.00	106.9	0.00	77.79	-	-	0.00	0.00	-
BT2				63	<b>10.28</b>		85.3			0.22	-3.00			75.01
BT2				125	<b>9.51</b>		94.0			0.87	5.85			84.51
BT2				250	<b>10.98</b>		99.6			2.19	8.60			88.58
BT2				500	<b>6.10</b>		102.0			4.15	14.00			95.94
BT2				1000	<b>10.54</b>		101.4			8.09	5.00			90.88
BT2				2000	<b>-1.31</b>		97.7			21.20	0.00			98.99
BT2				4000	<b>-58.61</b>		90.9			71.69	0.00			149.48
BT2				8000	<b>-252.69</b>		80.8			255.71	0.00			333.50
BT3		2 507	2 562		<b>16.92</b>	2.00	106.9	0.00	79.17	-	-	0.00	0.00	-
BT3				63	<b>8.86</b>		85.3			0.26	-3.00			76.43

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## DECIBEL - Detailed results

**Calculation:** DIURNO **Noise calculation model:** ISO 9613-2 General

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### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT3				125	7.98		94.0			1.02	5.85			86.05
BT3				250	9.22		99.6			2.56	8.60			90.33
BT3				500	4.01		102.0			4.87	14.00			98.04
BT3				1000	7.76		101.4			9.48	5.00			93.65
BT3				2000	-6.34		97.7			24.85	0.00			104.02
BT3				4000	-72.34		90.9			84.04	0.00			163.21
BT3				8000	-298.13		80.8			299.77	0.00			378.94
BT4	2 788	2 836			15.70	2.00	106.9	0.00	80.05	-	-	0.00	0.00	-
BT4				63	7.95		85.3			0.28	-3.00			77.34
BT4				125	6.98		94.0			1.13	5.85			87.04
BT4				250	8.06		99.6			2.84	8.60			91.49
BT4				500	2.60		102.0			5.39	14.00			99.44
BT4				1000	5.87		101.4			10.49	5.00			95.54
BT4				2000	-9.88		97.7			27.51	0.00			107.56
BT4				4000	-82.20		90.9			93.01	0.00			173.06
BT4				8000	-331.01		80.8			331.77	0.00			411.82
BT5	3 177	3 232			14.12	2.00	106.9	0.00	81.19	-	-	0.00	0.00	-
BT5				63	6.78		85.3			0.32	-3.00			78.51
BT5				125	5.69		94.0			1.29	5.85			88.33
BT5				250	6.53		99.6			3.23	8.60			93.02
BT5				500	0.72		102.0			6.14	14.00			101.33
BT5				1000	3.27		101.4			11.96	5.00			98.15
BT5				2000	-14.86		97.7			31.35	0.00			112.54
BT5				4000	-96.33		90.9			106.01	0.00			187.20
BT5				8000	-378.52		80.8			378.14	0.00			459.33
BT6	3 802	3 841			12.17	2.00	106.9	0.00	82.69	-	-	0.00	0.00	-
BT6				63	5.57		85.3			0.38	-3.35			79.72
BT6				125	3.95		94.0			1.54	5.85			90.07
BT6				250	4.42		99.6			3.84	8.60			95.13
BT6				500	-1.94		102.0			7.30	14.00			103.99
BT6				1000	-0.49		101.4			14.21	5.00			101.90
BT6				2000	-22.27		97.7			37.26	0.00			119.95
BT6				4000	-117.81		90.9			125.99	0.00			208.67
BT6				8000	-451.28		80.8			449.40	0.00			532.09
BT7	4 133	4 169			11.27	2.00	106.9	0.00	83.40	-	-	0.00	0.00	-
BT7				63	5.03		85.3			0.42	-3.56			80.26
BT7				125	3.10		94.0			1.67	5.85			90.92
BT7				250	3.38		99.6			4.17	8.60			96.17
BT7				500	-3.28		102.0			7.92	14.00			105.32
BT7				1000	-2.41		101.4			15.43	5.00			103.83
BT7				2000	-26.16		97.7			40.44	0.00			123.84
BT7				4000	-129.28		90.9			136.75	0.00			220.15
BT7				8000	-490.37		80.8			487.78	0.00			571.18
Sum					24.50									
Sum				63	44.78									
Sum				125	33.68									
Sum				250	27.35									
Sum				500	16.67									
Sum				1000	17.24									
Sum				2000	2.78									
Sum				4000	-56.38									
Sum				8000	-249.52									

- Data undefined due to calculation with octave data



Project:

**230515 Modello Borgo Taro per acustica**

Licensed user:

**MORI MANTOVANI ASSOCIATI SRL**

VIA STRASBURGO 18A

IT-43123 PARMA

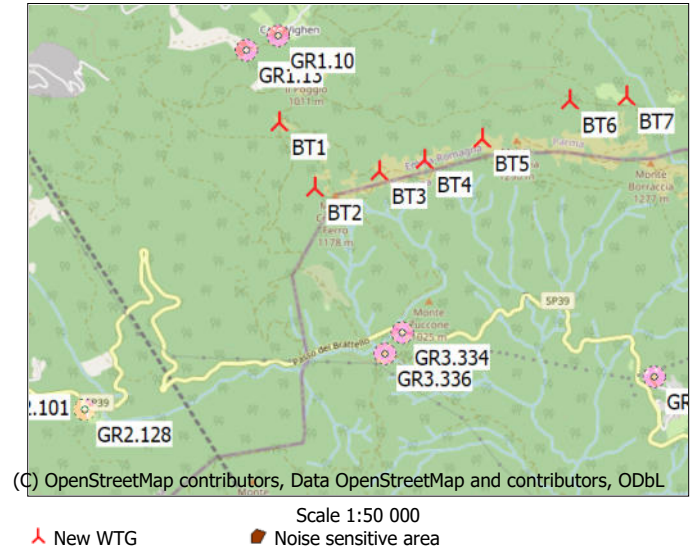
+390521239944

GIULIO BARTOLI / giulio@morimantovani.it

Calculated:

02/06/2023 12:50/3.6.366

## DECIBEL - Detailed results

**Calculation:** DIURNO **Noise calculation model:** ISO 9613-2 General

### Noise sensitive area: GR3.334 Passo del Brattello

Wind speed: 3.0 m/s

#### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT1		1 612	1 625		<b>8.34</b>	2.00	93.2	0.00	75.22	-	-	0.00	0.00	-
BT1				63	<b>-1.86</b>		70.5			0.16	-3.00			72.38
BT1				125	<b>-2.34</b>		79.4			0.65	5.85			81.71
BT1				250	<b>-0.24</b>		85.2			1.63	8.60			85.44
BT1				500	<b>-4.22</b>		88.1			3.09	14.00			92.30
BT1				1000	<b>1.76</b>		88.0			6.01	5.00			86.23
BT1				2000	<b>-6.15</b>		84.8			15.76	0.00			90.98
BT1				4000	<b>-49.86</b>		78.7			53.30	0.00			128.52
BT1				8000	<b>-195.90</b>		69.5			190.13	0.00			265.35
BT2		1 121	1 163		<b>12.47</b>	2.00	93.2	0.00	72.31	-	-	0.00	0.00	-
BT2				63	<b>1.09</b>		70.5			0.12	-3.00			69.43
BT2				125	<b>0.92</b>		79.4			0.47	5.68			78.46
BT2				250	<b>3.13</b>		85.2			1.16	8.60			82.08
BT2				500	<b>-0.44</b>		88.1			2.21	14.00			88.52
BT2				1000	<b>6.38</b>		88.0			4.30	5.00			81.62
BT2				2000	<b>1.23</b>		84.8			11.28	0.00			83.60
BT2				4000	<b>-31.81</b>		78.7			38.15	0.00			110.47
BT2				8000	<b>-138.96</b>		69.5			136.10	0.00			208.42
BT3		1 079	1 114		<b>13.00</b>	2.00	93.2	0.00	71.94	-	-	0.00	0.00	-
BT3				63	<b>1.47</b>		70.5			0.11	-3.00			69.05
BT3				125	<b>1.36</b>		79.4			0.45	5.63			78.02
BT3				250	<b>3.55</b>		85.2			1.11	8.60			81.65
BT3				500	<b>0.03</b>		88.1			2.12	14.00			88.06
BT3				1000	<b>6.93</b>		88.0			4.12	5.00			81.06
BT3				2000	<b>2.08</b>		84.8			10.81	0.00			82.75
BT3				4000	<b>-29.82</b>		78.7			36.54	0.00			108.48
BT3				8000	<b>-132.84</b>		69.5			130.36	0.00			202.30
BT4		1 152	1 183		<b>12.27</b>	2.00	93.2	0.00	72.46	-	-	0.00	0.00	-
BT4				63	<b>0.94</b>		70.5			0.12	-3.00			69.58
BT4				125	<b>0.73</b>		79.4			0.47	5.71			78.64
BT4				250	<b>2.97</b>		85.2			1.18	8.60			82.24
BT4				500	<b>-0.62</b>		88.1			2.25	14.00			88.71
BT4				1000	<b>6.16</b>		88.0			4.38	5.00			81.84
BT4				2000	<b>0.90</b>		84.8			11.47	0.00			83.93
BT4				4000	<b>-32.60</b>		78.7			38.80	0.00			111.26
BT4				8000	<b>-141.40</b>		69.5			138.39	0.00			210.85
BT5		1 383	1 425		<b>9.97</b>	2.00	93.2	0.00	74.07	-	-	0.00	0.00	-
BT5				63	<b>-0.70</b>		70.5			0.14	-3.00			71.22
BT5				125	<b>-1.09</b>		79.4			0.57	5.82			80.47

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## DECIBEL - Detailed results

**Calculation:** DIURNO **Noise calculation model:** ISO 9613-2 General

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### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT5				250	1.11		85.2			1.42	8.60			84.10
BT5				500	-2.69		88.1			2.71	14.00			90.78
BT5				1000	3.65		88.0			5.27	5.00			84.35
BT5				2000	-3.06		84.8			13.82	0.00			87.89
BT5				4000	-42.15		78.7			46.73	0.00			120.81
BT5				8000	-171.31		69.5			166.69	0.00			240.77
BT6		1 892	1 915		6.30	2.00	93.2	0.00	76.64	-	-	0.00	0.00	-
BT6				63	-3.32		70.5			0.19	-3.00			73.83
BT6				125	-3.88		79.4			0.77	5.85			83.26
BT6				250	-1.95		85.2			1.92	8.60			87.16
BT6				500	-6.19		88.1			3.64	14.00			94.28
BT6				1000	-0.73		88.0			7.09	5.00			88.73
BT6				2000	-10.39		84.8			18.58	0.00			95.22
BT6				4000	-60.80		78.7			62.81	0.00			139.46
BT6				8000	-231.25		69.5			224.06	0.00			300.70
BT7		2 147	2 168		4.74	2.00	93.2	0.00	77.72	-	-	0.00	0.00	-
BT7				63	-4.42		70.5			0.22	-3.00			74.94
BT7				125	-5.06		79.4			0.87	5.85			84.44
BT7				250	-3.28		85.2			2.17	8.60			88.49
BT7				500	-7.76		88.1			4.12	14.00			95.84
BT7				1000	-2.75		88.0			8.02	5.00			90.75
BT7				2000	-13.93		84.8			21.03	0.00			98.76
BT7				4000	-70.19		78.7			71.12	0.00			148.84
BT7				8000	-261.97		69.5			253.70	0.00			331.42
Sum					18.95									
Sum				63	36.17									
Sum				125	25.79									
Sum				250	20.44									
Sum				500	11.33									
Sum				1000	14.70									
Sum				2000	7.83									
Sum				4000	-25.34									
Sum				8000	-128.33									

- Data undefined due to calculation with octave data

Wind speed: 4.0 m/s

### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT1		1 612	1 625		8.85	2.00	93.6	0.00	75.22	-	-	0.00	0.00	-
BT1				63	-1.09		71.3			0.16	-3.00			72.38
BT1				125	-1.64		80.1			0.65	5.85			81.71
BT1				250	0.36		85.8			1.63	8.60			85.44
BT1				500	-3.72		88.6			3.09	14.00			92.30
BT1				1000	2.07		88.3			6.01	5.00			86.23
BT1				2000	-6.00		85.0			15.76	0.00			90.98
BT1				4000	-49.79		78.7			53.30	0.00			128.52
BT1				8000	-195.94		69.4			190.13	0.00			265.35
BT2		1 121	1 163		12.93	2.00	93.6	0.00	72.31	-	-	0.00	0.00	-
BT2				63	1.86		71.3			0.12	-3.00			69.43
BT2				125	1.62		80.1			0.47	5.68			78.46
BT2				250	3.73		85.8			1.16	8.60			82.08
BT2				500	0.06		88.6			2.21	14.00			88.52
BT2				1000	6.69		88.3			4.30	5.00			81.62
BT2				2000	1.38		85.0			11.28	0.00			83.60
BT2				4000	-31.74		78.7			38.15	0.00			110.47
BT2				8000	-139.01		69.4			136.10	0.00			208.42
BT3		1 079	1 114		13.46	2.00	93.6	0.00	71.94	-	-	0.00	0.00	-
BT3				63	2.24		71.3			0.11	-3.00			69.05
BT3				125	2.06		80.1			0.45	5.63			78.02
BT3				250	4.15		85.8			1.11	8.60			81.65
BT3				500	0.53		88.6			2.12	14.00			88.06
BT3				1000	7.24		88.3			4.12	5.00			81.06

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## DECIBEL - Detailed results

**Calculation:** DIURNO **Noise calculation model:** ISO 9613-2 General

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### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT3				2000	2.23		85.0			10.81	0.00			82.75
BT3				4000	-29.76		78.7			36.54	0.00			108.48
BT3				8000	-132.89		69.4			130.36	0.00			202.30
BT4		1 152	1 183		12.73	2.00	93.6	0.00	72.46	-	-	0.00	0.00	-
BT4				63	1.71		71.3			0.12	-3.00			69.58
BT4				125	1.43		80.1			0.47	5.71			78.64
BT4				250	3.57		85.8			1.18	8.60			82.24
BT4				500	-0.12		88.6			2.25	14.00			88.71
BT4				1000	6.47		88.3			4.38	5.00			81.84
BT4				2000	1.04		85.0			11.47	0.00			83.93
BT4				4000	-32.53		78.7			38.80	0.00			111.26
BT4				8000	-141.45		69.4			138.39	0.00			210.85
BT5		1 383	1 425		10.46	2.00	93.6	0.00	74.07	-	-	0.00	0.00	-
BT5				63	0.07		71.3			0.14	-3.00			71.22
BT5				125	-0.39		80.1			0.57	5.82			80.47
BT5				250	1.71		85.8			1.42	8.60			84.10
BT5				500	-2.19		88.6			2.71	14.00			90.78
BT5				1000	3.96		88.3			5.27	5.00			84.35
BT5				2000	-2.92		85.0			13.82	0.00			87.89
BT5				4000	-42.08		78.7			46.73	0.00			120.81
BT5				8000	-171.36		69.4			166.69	0.00			240.77
BT6		1 892	1 915		6.83	2.00	93.6	0.00	76.64	-	-	0.00	0.00	-
BT6				63	-2.54		71.3			0.19	-3.00			73.83
BT6				125	-3.18		80.1			0.77	5.85			83.26
BT6				250	-1.35		85.8			1.92	8.60			87.16
BT6				500	-5.69		88.6			3.64	14.00			94.28
BT6				1000	-0.43		88.3			7.09	5.00			88.73
BT6				2000	-10.24		85.0			18.58	0.00			95.22
BT6				4000	-60.73		78.7			62.81	0.00			139.46
BT6				8000	-231.30		69.4			224.06	0.00			300.70
BT7		2 147	2 168		5.30	2.00	93.6	0.00	77.72	-	-	0.00	0.00	-
BT7				63	-3.65		71.3			0.22	-3.00			74.94
BT7				125	-4.36		80.1			0.87	5.85			84.44
BT7				250	-2.68		85.8			2.17	8.60			88.49
BT7				500	-7.26		88.6			4.12	14.00			95.84
BT7				1000	-2.44		88.3			8.02	5.00			90.75
BT7				2000	-13.78		85.0			21.03	0.00			98.76
BT7				4000	-70.12		78.7			71.12	0.00			148.84
BT7				8000	-262.02		69.4			253.70	0.00			331.42
Sum					19.42									
Sum				63	36.94									
Sum				125	26.49									
Sum				250	21.04									
Sum				500	11.83									
Sum				1000	15.00									
Sum				2000	7.97									
Sum				4000	-25.27									
Sum				8000	-128.38									

- Data undefined due to calculation with octave data

Wind speed: 5.0 m/s

### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT1		1 612	1 625		11.87	2.00	96.5	0.00	75.22	-	-	0.00	0.00	-
BT1				63	2.21		74.6			0.16	-3.00			72.38
BT1				125	1.59		83.3			0.65	5.85			81.71
BT1				250	3.49		88.9			1.63	8.60			85.44
BT1				500	-0.75		91.6			3.09	14.00			92.30
BT1				1000	4.87		91.1			6.01	5.00			86.23
BT1				2000	-3.36		87.6			15.76	0.00			90.98
BT1				4000	-47.38		81.1			53.30	0.00			128.52
BT1				8000	-193.85		71.5			190.13	0.00			265.35

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## DECIBEL - Detailed results

**Calculation:** DIURNO **Noise calculation model:** ISO 9613-2 General

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### WTG

No.	Reflection obstacle	Distance	Sound distance	Frequency	Calculated	Uncertainty margin	LwA,ref	Dc	Adiv	Aatm	Agr	Abar	Amisc	A
		[m]	[m]	[Hz]	[dB(A)]	[dB]	[dB(A)]	[dB]	[dB]	[dB]	[dB]	[dB]	[dB]	[dB]
BT2		1 121	1 163		<b>15.91</b>	2.00	96.5	0.00	72.31	-	-	0.00	0.00	-
BT2				63	<b>5.16</b>		74.6			0.12	-3.00			69.43
BT2				125	<b>4.85</b>		83.3			0.47	5.68			78.46
BT2				250	<b>6.85</b>		88.9			1.16	8.60			82.08
BT2				500	<b>3.03</b>		91.6			2.21	14.00			88.52
BT2				1000	<b>9.49</b>		91.1			4.30	5.00			81.62
BT2				2000	<b>4.03</b>		87.6			11.28	0.00			83.60
BT2				4000	<b>-29.33</b>		81.1			38.15	0.00			110.47
BT2				8000	<b>-136.92</b>		71.5			136.10	0.00			208.42
BT3	1 079	1 114			<b>16.43</b>	2.00	96.5	0.00	71.94	-	-	0.00	0.00	-
BT3				63	<b>5.54</b>		74.6			0.11	-3.00			69.05
BT3				125	<b>5.29</b>		83.3			0.45	5.63			78.02
BT3				250	<b>7.28</b>		88.9			1.11	8.60			81.65
BT3				500	<b>3.50</b>		91.6			2.12	14.00			88.06
BT3				1000	<b>10.04</b>		91.1			4.12	5.00			81.06
BT3				2000	<b>4.88</b>		87.6			10.81	0.00			82.75
BT3				4000	<b>-27.35</b>		81.1			36.54	0.00			108.48
BT3				8000	<b>-130.80</b>		71.5			130.36	0.00			202.30
BT4	1 152	1 183			<b>15.71</b>	2.00	96.5	0.00	72.46	-	-	0.00	0.00	-
BT4				63	<b>5.01</b>		74.6			0.12	-3.00			69.58
BT4				125	<b>4.66</b>		83.3			0.47	5.71			78.64
BT4				250	<b>6.69</b>		88.9			1.18	8.60			82.24
BT4				500	<b>2.84</b>		91.6			2.25	14.00			88.71
BT4				1000	<b>9.27</b>		91.1			4.38	5.00			81.84
BT4				2000	<b>3.69</b>		87.6			11.47	0.00			83.93
BT4				4000	<b>-30.12</b>		81.1			38.80	0.00			111.26
BT4				8000	<b>-139.36</b>		71.5			138.39	0.00			210.85
BT5	1 383	1 425			<b>13.46</b>	2.00	96.5	0.00	74.07	-	-	0.00	0.00	-
BT5				63	<b>3.37</b>		74.6			0.14	-3.00			71.22
BT5				125	<b>2.84</b>		83.3			0.57	5.82			80.47
BT5				250	<b>4.83</b>		88.9			1.42	8.60			84.10
BT5				500	<b>0.77</b>		91.6			2.71	14.00			90.78
BT5				1000	<b>6.76</b>		91.1			5.27	5.00			84.35
BT5				2000	<b>-0.27</b>		87.6			13.82	0.00			87.89
BT5				4000	<b>-39.67</b>		81.1			46.73	0.00			120.81
BT5				8000	<b>-169.27</b>		71.5			166.69	0.00			240.77
BT6	1 892	1 915			<b>9.88</b>	2.00	96.5	0.00	76.64	-	-	0.00	0.00	-
BT6				63	<b>0.76</b>		74.6			0.19	-3.00			73.83
BT6				125	<b>0.05</b>		83.3			0.77	5.85			83.26
BT6				250	<b>1.77</b>		88.9			1.92	8.60			87.16
BT6				500	<b>-2.73</b>		91.6			3.64	14.00			94.28
BT6				1000	<b>2.37</b>		91.1			7.09	5.00			88.73
BT6				2000	<b>-7.60</b>		87.6			18.58	0.00			95.22
BT6				4000	<b>-58.32</b>		81.1			62.81	0.00			139.46
BT6				8000	<b>-229.21</b>		71.5			224.06	0.00			300.70
BT7	2 147	2 168			<b>8.37</b>	2.00	96.5	0.00	77.72	-	-	0.00	0.00	-
BT7				63	<b>-0.35</b>		74.6			0.22	-3.00			74.94
BT7				125	<b>-1.13</b>		83.3			0.87	5.85			84.44
BT7				250	<b>0.44</b>		88.9			2.17	8.60			88.49
BT7				500	<b>-4.29</b>		91.6			4.12	14.00			95.84
BT7				1000	<b>0.36</b>		91.1			8.02	5.00			90.75
BT7				2000	<b>-11.13</b>		87.6			21.03	0.00			98.76
BT7				4000	<b>-67.71</b>		81.1			71.12	0.00			148.84
BT7				8000	<b>-259.93</b>		71.5			253.70	0.00			331.42
Sum					<b>22.41</b>									
Sum				63	<b>40.24</b>									
Sum				125	<b>29.72</b>									
Sum				250	<b>24.17</b>									
Sum				500	<b>14.79</b>									
Sum				1000	<b>17.80</b>									
Sum				2000	<b>10.62</b>									
Sum				4000	<b>-22.86</b>									
Sum				8000	<b>-126.29</b>									

- Data undefined due to calculation with octave data

## DECIBEL - Detailed results

**Calculation:** DIURNO **Noise calculation model:** ISO 9613-2 General

Wind speed: 6.0 m/s

### WTG

No.	Reflection obstacle	Distance	Sound distance	Frequency	Calculated	Uncertainty margin	LwA,ref	Dc	Adiv	Aatm	Agr	Abar	Amisc	A
		[m]	[m]	[Hz]	[dB(A)]	[dB]	[dB(A)]	[dB]	[dB]	[dB]	[dB]	[dB]	[dB]	[dB]
BT1		1 612	1 625		<b>15.43</b>	2.00	100.0	0.00	75.22	-	-	0.00	0.00	-
BT1				63	<b>5.85</b>		78.2			0.16	-3.00			72.38
BT1				125	<b>5.21</b>		86.9			0.65	5.85			81.71
BT1				250	<b>7.09</b>		92.5			1.63	8.60			85.44
BT1				500	<b>2.78</b>		95.1			3.09	14.00			92.30
BT1				1000	<b>8.35</b>		94.6			6.01	5.00			86.23
BT1				2000	<b>0.02</b>		91.0			15.76	0.00			90.98
BT1				4000	<b>-44.18</b>		84.3			53.30	0.00			128.52
BT1				8000	<b>-190.79</b>		74.6			190.13	0.00			265.35
BT2		1 121	1 163		<b>19.44</b>	2.00	100.0	0.00	72.31	-	-	0.00	0.00	-
BT2				63	<b>8.80</b>		78.2			0.12	-3.00			69.43
BT2				125	<b>8.46</b>		86.9			0.47	5.68			78.46
BT2				250	<b>10.45</b>		92.5			1.16	8.60			82.08
BT2				500	<b>6.56</b>		95.1			2.21	14.00			88.52
BT2				1000	<b>12.96</b>		94.6			4.30	5.00			81.62
BT2				2000	<b>7.40</b>		91.0			11.28	0.00			83.60
BT2				4000	<b>-26.13</b>		84.3			38.15	0.00			110.47
BT2				8000	<b>-133.86</b>		74.6			136.10	0.00			208.42
BT3		1 079	1 114		<b>19.96</b>	2.00	100.0	0.00	71.94	-	-	0.00	0.00	-
BT3				63	<b>9.18</b>		78.2			0.11	-3.00			69.05
BT3				125	<b>8.91</b>		86.9			0.45	5.63			78.02
BT3				250	<b>10.88</b>		92.5			1.11	8.60			81.65
BT3				500	<b>7.03</b>		95.1			2.12	14.00			88.06
BT3				1000	<b>13.51</b>		94.6			4.12	5.00			81.06
BT3				2000	<b>8.25</b>		91.0			10.81	0.00			82.75
BT3				4000	<b>-24.15</b>		84.3			36.54	0.00			108.48
BT3				8000	<b>-127.74</b>		74.6			130.36	0.00			202.30
BT4		1 152	1 183		<b>19.24</b>	2.00	100.0	0.00	72.46	-	-	0.00	0.00	-
BT4				63	<b>8.65</b>		78.2			0.12	-3.00			69.58
BT4				125	<b>8.28</b>		86.9			0.47	5.71			78.64
BT4				250	<b>10.29</b>		92.5			1.18	8.60			82.24
BT4				500	<b>6.38</b>		95.1			2.25	14.00			88.71
BT4				1000	<b>12.74</b>		94.6			4.38	5.00			81.84
BT4				2000	<b>7.07</b>		91.0			11.47	0.00			83.93
BT4				4000	<b>-26.92</b>		84.3			38.80	0.00			111.26
BT4				8000	<b>-136.29</b>		74.6			138.39	0.00			210.85
BT5		1 383	1 425		<b>17.01</b>	2.00	100.0	0.00	74.07	-	-	0.00	0.00	-
BT5				63	<b>7.01</b>		78.2			0.14	-3.00			71.22
BT5				125	<b>6.45</b>		86.9			0.57	5.82			80.47
BT5				250	<b>8.43</b>		92.5			1.42	8.60			84.10
BT5				500	<b>4.30</b>		95.1			2.71	14.00			90.78
BT5				1000	<b>10.23</b>		94.6			5.27	5.00			84.35
BT5				2000	<b>3.11</b>		91.0			13.82	0.00			87.89
BT5				4000	<b>-36.47</b>		84.3			46.73	0.00			120.81
BT5				8000	<b>-166.21</b>		74.6			166.69	0.00			240.77
BT6		1 892	1 915		<b>13.44</b>	2.00	100.0	0.00	76.64	-	-	0.00	0.00	-
BT6				63	<b>4.39</b>		78.2			0.19	-3.00			73.83
BT6				125	<b>3.66</b>		86.9			0.77	5.85			83.26
BT6				250	<b>5.37</b>		92.5			1.92	8.60			87.16
BT6				500	<b>0.80</b>		95.1			3.64	14.00			94.28
BT6				1000	<b>5.85</b>		94.6			7.09	5.00			88.73
BT6				2000	<b>-4.22</b>		91.0			18.58	0.00			95.22
BT6				4000	<b>-55.12</b>		84.3			62.81	0.00			139.46
BT6				8000	<b>-226.14</b>		74.6			224.06	0.00			300.70
BT7		2 147	2 168		<b>11.94</b>	2.00	100.0	0.00	77.72	-	-	0.00	0.00	-
BT7				63	<b>3.29</b>		78.2			0.22	-3.00			74.94
BT7				125	<b>2.48</b>		86.9			0.87	5.85			84.44
BT7				250	<b>4.04</b>		92.5			2.17	8.60			88.49
BT7				500	<b>-0.76</b>		95.1			4.12	14.00			95.84
BT7				1000	<b>3.83</b>		94.6			8.02	5.00			90.75
BT7				2000	<b>-7.75</b>		91.0			21.03	0.00			98.76
BT7				4000	<b>-64.51</b>		84.3			71.12	0.00			148.84
BT7				8000	<b>-256.86</b>		74.6			253.70	0.00			331.42

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## DECIBEL - Detailed results

**Calculation:** DIURNO **Noise calculation model:** ISO 9613-2 General

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### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
Sum					<b>25.95</b>									
Sum				63	<b>43.88</b>									
Sum				125	<b>33.33</b>									
Sum				250	<b>27.77</b>									
Sum				500	<b>18.32</b>									
Sum				1000	<b>21.28</b>									
Sum				2000	<b>14.00</b>									
Sum				4000	<b>-19.66</b>									
Sum				8000	<b>-123.23</b>									

- Data undefined due to calculation with octave data

Wind speed: 7.0 m/s

### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT1		1 612	1 625	63	<b>18.66</b>	2.00	103.2	0.00	75.22	-	-	0.00	0.00	-
BT1				125	<b>9.11</b>		81.5			0.16	-3.00			72.38
BT1				250	<b>8.49</b>		90.2			0.65	5.85			81.71
BT1				500	<b>10.34</b>		95.8			1.63	8.60			85.44
BT1				1000	<b>5.98</b>		98.3			3.09	14.00			92.30
BT1				2000	<b>11.55</b>		97.8			6.01	5.00			86.23
BT1				4000	<b>3.10</b>		94.1			15.76	0.00			90.98
BT1				8000	<b>-41.14</b>		87.4			53.30	0.00			128.52
BT1					<b>-187.84</b>		77.5			190.13	0.00			265.35
BT2		1 121	1 163	63	<b>22.66</b>	2.00	103.2	0.00	72.31	-	-	0.00	0.00	-
BT2				125	<b>12.06</b>		81.5			0.12	-3.00			69.43
BT2				250	<b>11.75</b>		90.2			0.47	5.68			78.46
BT2				500	<b>13.71</b>		95.8			1.16	8.60			82.08
BT2				1000	<b>9.76</b>		98.3			2.21	14.00			88.52
BT2				2000	<b>16.16</b>		97.8			4.30	5.00			81.62
BT2				4000	<b>10.48</b>		94.1			11.28	0.00			83.60
BT2				8000	<b>-23.09</b>		87.4			38.15	0.00			110.47
BT2					<b>-130.90</b>		77.5			136.10	0.00			208.42
BT3		1 079	1 114	63	<b>23.17</b>	2.00	103.2	0.00	71.94	-	-	0.00	0.00	-
BT3				125	<b>12.44</b>		81.5			0.11	-3.00			69.05
BT3				250	<b>12.19</b>		90.2			0.45	5.63			78.02
BT3				500	<b>14.13</b>		95.8			1.11	8.60			81.65
BT3				1000	<b>10.23</b>		98.3			2.12	14.00			88.06
BT3				2000	<b>16.71</b>		97.8			4.12	5.00			81.06
BT3				4000	<b>11.33</b>		94.1			10.81	0.00			82.75
BT3				8000	<b>-21.10</b>		87.4			36.54	0.00			108.48
BT3					<b>-124.79</b>		77.5			130.36	0.00			202.30
BT4		1 152	1 183	63	<b>22.46</b>	2.00	103.2	0.00	72.46	-	-	0.00	0.00	-
BT4				125	<b>11.91</b>		81.5			0.12	-3.00			69.58
BT4				250	<b>11.56</b>		90.2			0.47	5.71			78.64
BT4				500	<b>13.54</b>		95.8			1.18	8.60			82.24
BT4				1000	<b>9.58</b>		98.3			2.25	14.00			88.71
BT4				2000	<b>15.94</b>		97.8			4.38	5.00			81.84
BT4				4000	<b>10.15</b>		94.1			11.47	0.00			83.93
BT4				8000	<b>-23.88</b>		87.4			38.80	0.00			111.26
BT4					<b>-133.34</b>		77.5			138.39	0.00			210.85
BT5		1 383	1 425	63	<b>20.24</b>	2.00	103.2	0.00	74.07	-	-	0.00	0.00	-
BT5				125	<b>10.27</b>		81.5			0.14	-3.00			71.22
BT5				250	<b>9.74</b>		90.2			0.57	5.82			80.47
BT5				500	<b>11.69</b>		95.8			1.42	8.60			84.10
BT5				1000	<b>7.50</b>		98.3			2.71	14.00			90.78
BT5				2000	<b>13.43</b>		97.8			5.27	5.00			84.35
BT5				4000	<b>6.19</b>		94.1			13.82	0.00			87.89
BT5				8000	<b>-33.43</b>		87.4			46.73	0.00			120.81
BT5					<b>-163.26</b>		77.5			166.69	0.00			240.77
BT6		1 892	1 915	63	<b>16.68</b>	2.00	103.2	0.00	76.64	-	-	0.00	0.00	-
BT6				125	<b>7.66</b>		81.5			0.19	-3.00			73.83
BT6					<b>6.95</b>		90.2			0.77	5.85			83.26

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Project:

**230515 Modello Borgo Taro per acustica**

Licensed user:

**MORI MANTOVANI ASSOCIATI SRL**

VIA STRASBURGO 18A

IT-43123 PARMA

+390521239944

GIULIO BARTOLI / giulio@morimantovani.it

Calculated:

02/06/2023 12:50/3.6.366

## DECIBEL - Detailed results

**Calculation:** DIURNO **Noise calculation model:** ISO 9613-2 General

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**WTG**

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT6				250	<b>8.63</b>		95.8			1.92	8.60			87.16
BT6				500	<b>4.00</b>		98.3			3.64	14.00			94.28
BT6				1000	<b>9.05</b>		97.8			7.09	5.00			88.73
BT6				2000	<b>-1.14</b>		94.1			18.58	0.00			95.22
BT6				4000	<b>-52.08</b>		87.4			62.81	0.00			139.46
BT6				8000	<b>-223.19</b>		77.5			224.06	0.00			300.70
BT7		2 147	2 168		<b>15.18</b>	2.00	103.2	0.00	77.72	-	-	0.00	0.00	-
BT7				63	<b>6.55</b>		81.5			0.22	-3.00			74.94
BT7				125	<b>5.77</b>		90.2			0.87	5.85			84.44
BT7				250	<b>7.29</b>		95.8			2.17	8.60			88.49
BT7				500	<b>2.44</b>		98.3			4.12	14.00			95.84
BT7				1000	<b>7.03</b>		97.8			8.02	5.00			90.75
BT7				2000	<b>-4.68</b>		94.1			21.03	0.00			98.76
BT7				4000	<b>-61.47</b>		87.4			71.12	0.00			148.84
BT7				8000	<b>-253.91</b>		77.5			253.70	0.00			331.42
Sum					<b>29.17</b>									
Sum				63	<b>47.14</b>									
Sum				125	<b>36.62</b>									
Sum				250	<b>31.02</b>									
Sum				500	<b>21.52</b>									
Sum				1000	<b>24.48</b>									
Sum				2000	<b>17.08</b>									
Sum				4000	<b>-16.62</b>									
Sum				8000	<b>-120.27</b>									

- Data undefined due to calculation with octave data

Wind speed: 8.0 m/s

**WTG**

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT1		1 612	1 625		<b>21.49</b>	2.00	106.0	0.00	75.22	-	-	0.00	0.00	-
BT1				63	<b>12.01</b>		84.4			0.16	-3.00			72.38
BT1				125	<b>11.39</b>		93.1			0.65	5.85			81.71
BT1				250	<b>13.21</b>		98.7			1.63	8.60			85.44
BT1				500	<b>8.84</b>		101.1			3.09	14.00			92.30
BT1				1000	<b>14.28</b>		100.5			6.01	5.00			86.23
BT1				2000	<b>5.80</b>		96.8			15.76	0.00			90.98
BT1				4000	<b>-38.54</b>		90.0			53.30	0.00			128.52
BT1				8000	<b>-185.35</b>		80.0			190.13	0.00			265.35
BT2		1 121	1 163		<b>25.48</b>	2.00	106.0	0.00	72.31	-	-	0.00	0.00	-
BT2				63	<b>14.96</b>		84.4			0.12	-3.00			69.43
BT2				125	<b>14.65</b>		93.1			0.47	5.68			78.46
BT2				250	<b>16.58</b>		98.7			1.16	8.60			82.08
BT2				500	<b>12.62</b>		101.1			2.21	14.00			88.52
BT2				1000	<b>18.90</b>		100.5			4.30	5.00			81.62
BT2				2000	<b>13.18</b>		96.8			11.28	0.00			83.60
BT2				4000	<b>-20.49</b>		90.0			38.15	0.00			110.47
BT2				8000	<b>-128.41</b>		80.0			136.10	0.00			208.42
BT3		1 079	1 114		<b>25.99</b>	2.00	106.0	0.00	71.94	-	-	0.00	0.00	-
BT3				63	<b>15.34</b>		84.4			0.11	-3.00			69.05
BT3				125	<b>15.09</b>		93.1			0.45	5.63			78.02
BT3				250	<b>17.00</b>		98.7			1.11	8.60			81.65
BT3				500	<b>13.09</b>		101.1			2.12	14.00			88.06
BT3				1000	<b>19.45</b>		100.5			4.12	5.00			81.06
BT3				2000	<b>14.03</b>		96.8			10.81	0.00			82.75
BT3				4000	<b>-18.50</b>		90.0			36.54	0.00			108.48
BT3				8000	<b>-122.30</b>		80.0			130.36	0.00			202.30
BT4		1 152	1 183		<b>25.28</b>	2.00	106.0	0.00	72.46	-	-	0.00	0.00	-
BT4				63	<b>14.81</b>		84.4			0.12	-3.00			69.58
BT4				125	<b>14.46</b>		93.1			0.47	5.71			78.64
BT4				250	<b>16.41</b>		98.7			1.18	8.60			82.24
BT4				500	<b>12.44</b>		101.1			2.25	14.00			88.71
BT4				1000	<b>18.68</b>		100.5			4.38	5.00			81.84

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## DECIBEL - Detailed results

**Calculation:** DIURNO **Noise calculation model:** ISO 9613-2 General

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### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT4				2000	12.85		96.8			11.47	0.00			83.93
BT4				4000	-21.28		90.0			38.80	0.00			111.26
BT4				8000	-130.85		80.0			138.39	0.00			210.85
BT5		1 383	1 425		23.06	2.00	106.0	0.00	74.07	-	-	0.00	0.00	-
BT5				63	13.17		84.4			0.14	-3.00			71.22
BT5				125	12.64		93.1			0.57	5.82			80.47
BT5				250	14.55		98.7			1.42	8.60			84.10
BT5				500	10.36		101.1			2.71	14.00			90.78
BT5				1000	16.17		100.5			5.27	5.00			84.35
BT5				2000	8.89		96.8			13.82	0.00			87.89
BT5				4000	-30.83		90.0			46.73	0.00			120.81
BT5				8000	-160.77		80.0			166.69	0.00			240.77
BT6		1 892	1 915		19.52	2.00	106.0	0.00	76.64	-	-	0.00	0.00	-
BT6				63	10.56		84.4			0.19	-3.00			73.83
BT6				125	9.85		93.1			0.77	5.85			83.26
BT6				250	11.49		98.7			1.92	8.60			87.16
BT6				500	6.86		101.1			3.64	14.00			94.28
BT6				1000	11.79		100.5			7.09	5.00			88.73
BT6				2000	1.56		96.8			18.58	0.00			95.22
BT6				4000	-49.48		90.0			62.81	0.00			139.46
BT6				8000	-220.70		80.0			224.06	0.00			300.70
BT7		2 147	2 168		18.03	2.00	106.0	0.00	77.72	-	-	0.00	0.00	-
BT7				63	9.45		84.4			0.22	-3.00			74.94
BT7				125	8.67		93.1			0.87	5.85			84.44
BT7				250	10.16		98.7			2.17	8.60			88.49
BT7				500	5.30		101.1			4.12	14.00			95.84
BT7				1000	9.77		100.5			8.02	5.00			90.75
BT7				2000	-1.98		96.8			21.03	0.00			98.76
BT7				4000	-58.87		90.0			71.12	0.00			148.84
BT7				8000	-251.42		80.0			253.70	0.00			331.42
Sum					31.99									
Sum				63	50.04									
Sum				125	39.52									
Sum				250	33.89									
Sum				500	24.39									
Sum				1000	27.21									
Sum				2000	19.78									
Sum				4000	-14.02									
Sum				8000	-117.78									

- Data undefined due to calculation with octave data

Wind speed: 9.0 m/s

### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT1		1 612	1 625		22.42	2.00	106.9	0.00	75.22	-	-	0.00	0.00	-
BT1				63	13.01		85.4			0.16	-3.00			72.38
BT1				125	12.34		94.1			0.65	5.85			81.71
BT1				250	14.14		99.6			1.63	8.60			85.44
BT1				500	9.74		102.0			3.09	14.00			92.30
BT1				1000	15.18		101.4			6.01	5.00			86.23
BT1				2000	6.60		97.6			15.76	0.00			90.98
BT1				4000	-37.75		90.8			53.30	0.00			128.52
BT1				8000	-184.67		80.7			190.13	0.00			265.35
BT2		1 121	1 163		26.39	2.00	106.9	0.00	72.31	-	-	0.00	0.00	-
BT2				63	15.96		85.4			0.12	-3.00			69.43
BT2				125	15.59		94.1			0.47	5.68			78.46
BT2				250	17.51		99.6			1.16	8.60			82.08
BT2				500	13.52		102.0			2.21	14.00			88.52
BT2				1000	19.80		101.4			4.30	5.00			81.62
BT2				2000	13.98		97.6			11.28	0.00			83.60
BT2				4000	-19.70		90.8			38.15	0.00			110.47
BT2				8000	-127.74		80.7			136.10	0.00			208.42

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## DECIBEL - Detailed results

**Calculation:** DIURNO **Noise calculation model:** ISO 9613-2 General

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### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT3		1 079	1 114		<b>26.90</b>	2.00	106.9	0.00	71.94	-	-	0.00	0.00	-
BT3				63	<b>16.34</b>		85.4			0.11	-3.00			69.05
BT3				125	<b>16.04</b>		94.1			0.45	5.63			78.02
BT3				250	<b>17.93</b>		99.6			1.11	8.60			81.65
BT3				500	<b>13.99</b>		102.0			2.12	14.00			88.06
BT3				1000	<b>20.35</b>		101.4			4.12	5.00			81.06
BT3				2000	<b>14.83</b>		97.6			10.81	0.00			82.75
BT3				4000	<b>-17.72</b>		90.8			36.54	0.00			108.48
BT3				8000	<b>-121.62</b>		80.7			130.36	0.00			202.30
BT4		1 152	1 183		<b>26.19</b>	2.00	106.9	0.00	72.46	-	-	0.00	0.00	-
BT4				63	<b>15.81</b>		85.4			0.12	-3.00			69.58
BT4				125	<b>15.41</b>		94.1			0.47	5.71			78.64
BT4				250	<b>17.34</b>		99.6			1.18	8.60			82.24
BT4				500	<b>13.34</b>		102.0			2.25	14.00			88.71
BT4				1000	<b>19.58</b>		101.4			4.38	5.00			81.84
BT4				2000	<b>13.65</b>		97.6			11.47	0.00			83.93
BT4				4000	<b>-20.49</b>		90.8			38.80	0.00			111.26
BT4				8000	<b>-130.18</b>		80.7			138.39	0.00			210.85
BT5		1 383	1 425		<b>23.98</b>	2.00	106.9	0.00	74.07	-	-	0.00	0.00	-
BT5				63	<b>14.17</b>		85.4			0.14	-3.00			71.22
BT5				125	<b>13.58</b>		94.1			0.57	5.82			80.47
BT5				250	<b>15.49</b>		99.6			1.42	8.60			84.10
BT5				500	<b>11.26</b>		102.0			2.71	14.00			90.78
BT5				1000	<b>17.07</b>		101.4			5.27	5.00			84.35
BT5				2000	<b>9.69</b>		97.6			13.82	0.00			87.89
BT5				4000	<b>-30.04</b>		90.8			46.73	0.00			120.81
BT5				8000	<b>-160.09</b>		80.7			166.69	0.00			240.77
BT6		1 892	1 915		<b>20.45</b>	2.00	106.9	0.00	76.64	-	-	0.00	0.00	-
BT6				63	<b>11.56</b>		85.4			0.19	-3.00			73.83
BT6				125	<b>10.79</b>		94.1			0.77	5.85			83.26
BT6				250	<b>12.43</b>		99.6			1.92	8.60			87.16
BT6				500	<b>7.76</b>		102.0			3.64	14.00			94.28
BT6				1000	<b>12.69</b>		101.4			7.09	5.00			88.73
BT6				2000	<b>2.36</b>		97.6			18.58	0.00			95.22
BT6				4000	<b>-48.69</b>		90.8			62.81	0.00			139.46
BT6				8000	<b>-220.02</b>		80.7			224.06	0.00			300.70
BT7		2 147	2 168		<b>18.96</b>	2.00	106.9	0.00	77.72	-	-	0.00	0.00	-
BT7				63	<b>10.45</b>		85.4			0.22	-3.00			74.94
BT7				125	<b>9.61</b>		94.1			0.87	5.85			84.44
BT7				250	<b>11.09</b>		99.6			2.17	8.60			88.49
BT7				500	<b>6.20</b>		102.0			4.12	14.00			95.84
BT7				1000	<b>10.67</b>		101.4			8.02	5.00			90.75
BT7				2000	<b>-1.18</b>		97.6			21.03	0.00			98.76
BT7				4000	<b>-58.08</b>		90.8			71.12	0.00			148.84
BT7				8000	<b>-250.74</b>		80.7			253.70	0.00			331.42
Sum					<b>32.92</b>									
Sum				63	<b>51.04</b>									
Sum				125	<b>40.46</b>									
Sum				250	<b>34.82</b>									
Sum				500	<b>25.29</b>									
Sum				1000	<b>28.11</b>									
Sum				2000	<b>20.58</b>									
Sum				4000	<b>-13.23</b>									
Sum				8000	<b>-117.11</b>									

- Data undefined due to calculation with octave data

Wind speed: 10.0 m/s

### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT1		1 612	1 625		<b>22.39</b>	2.00	106.9	0.00	75.22	-	-	0.00	0.00	-
BT1				63	<b>12.91</b>		85.3			0.16	-3.00			72.38
BT1				125	<b>12.31</b>		94.0			0.65	5.85			81.71

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## DECIBEL - Detailed results

**Calculation:** DIURNO **Noise calculation model:** ISO 9613-2 General

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### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT1				250	14.11		99.6			1.63	8.60			85.44
BT1				500	9.74		102.0			3.09	14.00			92.30
BT1				1000	15.18		101.4			6.01	5.00			86.23
BT1				2000	6.70		97.7			15.76	0.00			90.98
BT1				4000	-37.65		90.9			53.30	0.00			128.52
BT1				8000	-184.54		80.8			190.13	0.00			265.35
BT2	1 121	1 163			26.38	2.00	106.9	0.00	72.31	-	-	0.00	0.00	-
BT2				63	15.86		85.3			0.12	-3.00			69.43
BT2				125	15.56		94.0			0.47	5.68			78.46
BT2				250	17.48		99.6			1.16	8.60			82.08
BT2				500	13.52		102.0			2.21	14.00			88.52
BT2				1000	19.80		101.4			4.30	5.00			81.62
BT2				2000	14.08		97.7			11.28	0.00			83.60
BT2				4000	-19.60		90.9			38.15	0.00			110.47
BT2				8000	-127.60		80.8			136.10	0.00			208.42
BT3	1 079	1 114			26.89	2.00	106.9	0.00	71.94	-	-	0.00	0.00	-
BT3				63	16.24		85.3			0.11	-3.00			69.05
BT3				125	16.01		94.0			0.45	5.63			78.02
BT3				250	17.90		99.6			1.11	8.60			81.65
BT3				500	13.99		102.0			2.12	14.00			88.06
BT3				1000	20.35		101.4			4.12	5.00			81.06
BT3				2000	14.93		97.7			10.81	0.00			82.75
BT3				4000	-17.62		90.9			36.54	0.00			108.48
BT3				8000	-121.49		80.8			130.36	0.00			202.30
BT4	1 152	1 183			26.18	2.00	106.9	0.00	72.46	-	-	0.00	0.00	-
BT4				63	15.71		85.3			0.12	-3.00			69.58
BT4				125	15.38		94.0			0.47	5.71			78.64
BT4				250	17.31		99.6			1.18	8.60			82.24
BT4				500	13.34		102.0			2.25	14.00			88.71
BT4				1000	19.58		101.4			4.38	5.00			81.84
BT4				2000	13.75		97.7			11.47	0.00			83.93
BT4				4000	-20.39		90.9			38.80	0.00			111.26
BT4				8000	-130.04		80.8			138.39	0.00			210.85
BT5	1 383	1 425			23.96	2.00	106.9	0.00	74.07	-	-	0.00	0.00	-
BT5				63	14.07		85.3			0.14	-3.00			71.22
BT5				125	13.55		94.0			0.57	5.82			80.47
BT5				250	15.45		99.6			1.42	8.60			84.10
BT5				500	11.26		102.0			2.71	14.00			90.78
BT5				1000	17.07		101.4			5.27	5.00			84.35
BT5				2000	9.79		97.7			13.82	0.00			87.89
BT5				4000	-29.94		90.9			46.73	0.00			120.81
BT5				8000	-159.96		80.8			166.69	0.00			240.77
BT6	1 892	1 915			20.42	2.00	106.9	0.00	76.64	-	-	0.00	0.00	-
BT6				63	11.46		85.3			0.19	-3.00			73.83
BT6				125	10.76		94.0			0.77	5.85			83.26
BT6				250	12.39		99.6			1.92	8.60			87.16
BT6				500	7.76		102.0			3.64	14.00			94.28
BT6				1000	12.69		101.4			7.09	5.00			88.73
BT6				2000	2.46		97.7			18.58	0.00			95.22
BT6				4000	-48.59		90.9			62.81	0.00			139.46
BT6				8000	-219.89		80.8			224.06	0.00			300.70
BT7	2 147	2 168			18.93	2.00	106.9	0.00	77.72	-	-	0.00	0.00	-
BT7				63	10.35		85.3			0.22	-3.00			74.94
BT7				125	9.58		94.0			0.87	5.85			84.44
BT7				250	11.06		99.6			2.17	8.60			88.49
BT7				500	6.20		102.0			4.12	14.00			95.84
BT7				1000	10.67		101.4			8.02	5.00			90.75
BT7				2000	-1.08		97.7			21.03	0.00			98.76
BT7				4000	-57.98		90.9			71.12	0.00			148.84
BT7				8000	-250.61		80.8			253.70	0.00			331.42
Sum					32.90									
Sum				63	50.94									
Sum				125	40.43									

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Project:

**230515 Modello Borgo Taro per acustica**

Licensed user:

**MORI MANTOVANI ASSOCIATI SRL**

VIA STRASBURGO 18A

IT-43123 PARMA

+390521239944

GIULIO BARTOLI / giulio@morimantovani.it

Calculated:

02/06/2023 12:50/3.6.366

## DECIBEL - Detailed results

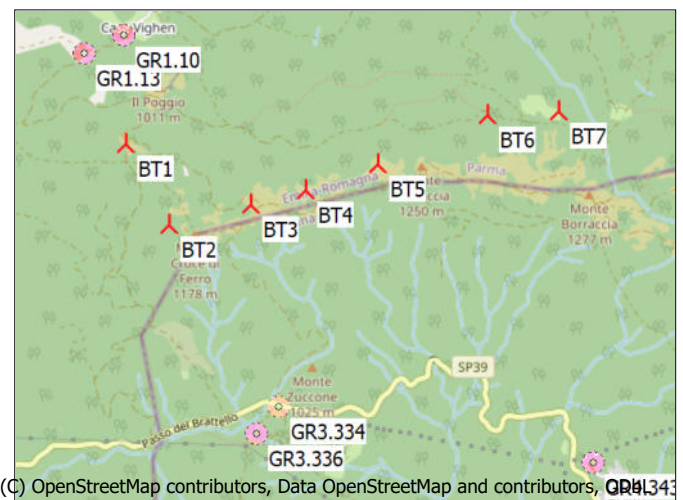
**Calculation: DIURNO Noise calculation model: ISO 9613-2 General**

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**WTG**

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
Sum				250	<b>34.79</b>									
Sum				500	<b>25.29</b>									
Sum				1000	<b>28.11</b>									
Sum				2000	<b>20.68</b>									
Sum				4000	<b>-13.13</b>									
Sum				8000	<b>-116.97</b>									

- Data undefined due to calculation with octave data



New WTG

Scale 1:40 000  
Noise sensitive area**Noise sensitive area: GR3.336 Passo del Brattello**

Wind speed: 3.0 m/s

**WTG**

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT1		1 687	1 699		<b>7.79</b>	2.00	93.2	0.00	75.60	-	-	0.00	0.00	-
BT1				63	<b>-2.25</b>		70.5			0.17	-3.00			72.77
BT1				125	<b>-2.75</b>		79.4			0.68	5.85			82.13
BT1				250	<b>-0.69</b>		85.2			1.70	8.60			85.90
BT1				500	<b>-4.74</b>		88.1			3.23	14.00			92.83
BT1				1000	<b>1.11</b>		88.0			6.29	5.00			86.89
BT1				2000	<b>-7.25</b>		84.8			16.48	0.00			92.08
BT1				4000	<b>-52.67</b>		78.7			55.72	0.00			131.33
BT1				8000	<b>-204.92</b>		69.5			198.77	0.00			274.37
BT2		1 197	1 236		<b>11.73</b>	2.00	93.2	0.00	72.84	-	-	0.00	0.00	-
BT2				63	<b>0.56</b>		70.5			0.12	-3.00			69.96
BT2				125	<b>0.30</b>		79.4			0.49	5.75			79.08
BT2				250	<b>2.53</b>		85.2			1.24	8.60			82.67
BT2				500	<b>-1.10</b>		88.1			2.35	14.00			89.19
BT2				1000	<b>5.58</b>		88.0			4.57	5.00			82.41
BT2				2000	<b>0.00</b>		84.8			11.99	0.00			84.83
BT2				4000	<b>-34.71</b>		78.7			40.53	0.00			113.37
BT2				8000	<b>-147.97</b>		69.5			144.59	0.00			217.43
BT3		1 212	1 243		<b>11.66</b>	2.00	93.2	0.00	72.89	-	-	0.00	0.00	-
BT3				63	<b>0.51</b>		70.5			0.12	-3.00			70.01
BT3				125	<b>0.24</b>		79.4			0.50	5.76			79.14
BT3				250	<b>2.48</b>		85.2			1.24	8.60			82.73
BT3				500	<b>-1.16</b>		88.1			2.36	14.00			89.25
BT3				1000	<b>5.51</b>		88.0			4.60	5.00			82.48
BT3				2000	<b>-0.11</b>		84.8			12.05	0.00			84.94
BT3				4000	<b>-34.99</b>		78.7			40.76	0.00			113.65

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## DECIBEL - Detailed results

**Calculation:** DIURNO **Noise calculation model:** ISO 9613-2 General

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### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT3				8000	<b>-148.82</b>		69.5			145.39	0.00			218.27
BT4		1 312	1 338		<b>10.75</b>	2.00	93.2	0.00	73.53	-	-	0.00	0.00	-
BT4				63	<b>-0.14</b>		70.5			0.13	-3.00			70.66
BT4				125	<b>-0.49</b>		79.4			0.54	5.80			79.87
BT4				250	<b>1.74</b>		85.2			1.34	8.60			83.47
BT4				500	<b>-1.98</b>		88.1			2.54	14.00			90.07
BT4				1000	<b>4.51</b>		88.0			4.95	5.00			83.48
BT4				2000	<b>-1.68</b>		84.8			12.98	0.00			86.51
BT4				4000	<b>-38.76</b>		78.7			43.89	0.00			117.42
BT4				8000	<b>-160.62</b>		69.5			156.55	0.00			230.08
BT5		1 560	1 595		<b>8.57</b>	2.00	93.2	0.00	75.06	-	-	0.00	0.00	-
BT5				63	<b>-1.70</b>		70.5			0.16	-3.00			72.22
BT5				125	<b>-2.16</b>		79.4			0.64	5.84			81.54
BT5				250	<b>-0.05</b>		85.2			1.60	8.60			85.25
BT5				500	<b>-4.00</b>		88.1			3.03	14.00			92.09
BT5				1000	<b>2.03</b>		88.0			5.90	5.00			85.96
BT5				2000	<b>-5.70</b>		84.8			15.48	0.00			90.53
BT5				4000	<b>-48.73</b>		78.7			52.33	0.00			127.39
BT5				8000	<b>-192.27</b>		69.5			186.67	0.00			261.72
BT6		2 074	2 095		<b>5.18</b>	2.00	93.2	0.00	77.42	-	-	0.00	0.00	-
BT6				63	<b>-4.11</b>		70.5			0.21	-3.00			74.63
BT6				125	<b>-4.73</b>		79.4			0.84	5.85			84.11
BT6				250	<b>-2.91</b>		85.2			2.09	8.60			88.12
BT6				500	<b>-7.31</b>		88.1			3.98	14.00			95.40
BT6				1000	<b>-2.18</b>		88.0			7.75	5.00			90.17
BT6				2000	<b>-12.91</b>		84.8			20.32	0.00			97.74
BT6				4000	<b>-67.47</b>		78.7			68.70	0.00			146.13
BT6				8000	<b>-253.04</b>		69.5			245.07	0.00			322.49
BT7		2 329	2 348		<b>3.75</b>	2.00	93.2	0.00	78.41	-	-	0.00	0.00	-
BT7				63	<b>-5.13</b>		70.5			0.23	-3.00			75.65
BT7				125	<b>-5.83</b>		79.4			0.94	5.85			85.20
BT7				250	<b>-4.15</b>		85.2			2.35	8.60			89.36
BT7				500	<b>-8.79</b>		88.1			4.46	14.00			96.87
BT7				1000	<b>-4.11</b>		88.0			8.69	5.00			92.10
BT7				2000	<b>-16.36</b>		84.8			22.77	0.00			101.19
BT7				4000	<b>-76.76</b>		78.7			77.01	0.00			155.42
BT7				8000	<b>-283.66</b>		69.5			274.70	0.00			353.11
Sum					<b>17.80</b>									
Sum				63	<b>35.35</b>									
Sum				125	<b>24.87</b>									
Sum				250	<b>19.52</b>									
Sum				500	<b>10.29</b>									
Sum				1000	<b>13.42</b>									
Sum				2000	<b>5.83</b>									
Sum				4000	<b>-29.93</b>									
Sum				8000	<b>-142.14</b>									

- Data undefined due to calculation with octave data

Wind speed: 4.0 m/s

### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT1		1 687	1 699		<b>8.30</b>	2.00	93.6	0.00	75.60	-	-	0.00	0.00	-
BT1				63	<b>-1.48</b>		71.3			0.17	-3.00			72.77
BT1				125	<b>-2.05</b>		80.1			0.68	5.85			82.13
BT1				250	<b>-0.09</b>		85.8			1.70	8.60			85.90
BT1				500	<b>-4.24</b>		88.6			3.23	14.00			92.83
BT1				1000	<b>1.41</b>		88.3			6.29	5.00			86.89
BT1				2000	<b>-7.11</b>		85.0			16.48	0.00			92.08
BT1				4000	<b>-52.60</b>		78.7			55.72	0.00			131.33
BT1				8000	<b>-204.97</b>		69.4			198.77	0.00			274.37
BT2		1 197	1 236		<b>12.20</b>	2.00	93.6	0.00	72.84	-	-	0.00	0.00	-
BT2				63	<b>1.33</b>		71.3			0.12	-3.00			69.96

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## DECIBEL - Detailed results

**Calculation:** DIURNO **Noise calculation model:** ISO 9613-2 General

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### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT2				125	1.00		80.1			0.49	5.75			79.08
BT2				250	3.13		85.8			1.24	8.60			82.67
BT2				500	-0.60		88.6			2.35	14.00			89.19
BT2				1000	5.89		88.3			4.57	5.00			82.41
BT2				2000	0.15		85.0			11.99	0.00			84.83
BT2				4000	-34.65		78.7			40.53	0.00			113.37
BT2				8000	-148.02		69.4			144.59	0.00			217.43
BT3	1 212	1 243		125	12.13	2.00	93.6	0.00	72.89	-	-	0.00	0.00	-
BT3				63	1.28		71.3			0.12	-3.00			70.01
BT3				125	0.94		80.1			0.50	5.76			79.14
BT3				250	3.08		85.8			1.24	8.60			82.73
BT3				500	-0.66		88.6			2.36	14.00			89.25
BT3				1000	5.82		88.3			4.60	5.00			82.48
BT3				2000	0.04		85.0			12.05	0.00			84.94
BT3				4000	-34.92		78.7			40.76	0.00			113.65
BT3				8000	-148.87		69.4			145.39	0.00			218.27
BT4	1 312	1 338		125	11.23	2.00	93.6	0.00	73.53	-	-	0.00	0.00	-
BT4				63	0.63		71.3			0.13	-3.00			70.66
BT4				125	0.21		80.1			0.54	5.80			79.87
BT4				250	2.34		85.8			1.34	8.60			83.47
BT4				500	-1.48		88.6			2.54	14.00			90.07
BT4				1000	4.82		88.3			4.95	5.00			83.48
BT4				2000	-1.53		85.0			12.98	0.00			86.51
BT4				4000	-38.69		78.7			43.89	0.00			117.42
BT4				8000	-160.67		69.4			156.55	0.00			230.08
BT5	1 560	1 595		125	9.07	2.00	93.6	0.00	75.06	-	-	0.00	0.00	-
BT5				63	-0.93		71.3			0.16	-3.00			72.22
BT5				125	-1.46		80.1			0.64	5.84			81.54
BT5				250	0.55		85.8			1.60	8.60			85.25
BT5				500	-3.50		88.6			3.03	14.00			92.09
BT5				1000	2.34		88.3			5.90	5.00			85.96
BT5				2000	-5.56		85.0			15.48	0.00			90.53
BT5				4000	-48.66		78.7			52.33	0.00			127.39
BT5				8000	-192.32		69.4			186.67	0.00			261.72
BT6	2 074	2 095		125	5.72	2.00	93.6	0.00	77.42	-	-	0.00	0.00	-
BT6				63	-3.34		71.3			0.21	-3.00			74.63
BT6				125	-4.03		80.1			0.84	5.85			84.11
BT6				250	-2.31		85.8			2.09	8.60			88.12
BT6				500	-6.81		88.6			3.98	14.00			95.40
BT6				1000	-1.87		88.3			7.75	5.00			90.17
BT6				2000	-12.76		85.0			20.32	0.00			97.74
BT6				4000	-67.40		78.7			68.70	0.00			146.13
BT6				8000	-253.09		69.4			245.07	0.00			322.49
BT7	2 329	2 348		125	4.32	2.00	93.6	0.00	78.41	-	-	0.00	0.00	-
BT7				63	-4.36		71.3			0.23	-3.00			75.65
BT7				125	-5.13		80.1			0.94	5.85			85.20
BT7				250	-3.55		85.8			2.35	8.60			89.36
BT7				500	-8.29		88.6			4.46	14.00			96.87
BT7				1000	-3.80		88.3			8.69	5.00			92.10
BT7				2000	-16.21		85.0			22.77	0.00			101.19
BT7				4000	-76.70		78.7			77.01	0.00			155.42
BT7				8000	-283.71		69.4			274.70	0.00			353.11
Sum					18.29									
Sum				63	36.13									
Sum				125	25.57									
Sum				250	20.12									
Sum				500	10.79									
Sum				1000	13.73									
Sum				2000	5.98									
Sum				4000	-29.86									
Sum				8000	-142.19									

- Data undefined due to calculation with octave data

## DECIBEL - Detailed results

**Calculation:** DIURNO **Noise calculation model:** ISO 9613-2 General

Wind speed: 5.0 m/s

### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT1		1 687	1 699		<b>11.34</b>	2.00	96.5	0.00	75.60	-	-	0.00	0.00	-
BT1				63	<b>1.82</b>		74.6			0.17	-3.00			72.77
BT1				125	<b>1.17</b>		83.3			0.68	5.85			82.13
BT1				250	<b>3.03</b>		88.9			1.70	8.60			85.90
BT1				500	<b>-1.28</b>		91.6			3.23	14.00			92.83
BT1				1000	<b>4.21</b>		91.1			6.29	5.00			86.89
BT1				2000	<b>-4.46</b>		87.6			16.48	0.00			92.08
BT1				4000	<b>-50.19</b>		81.1			55.72	0.00			131.33
BT1				8000	<b>-202.88</b>		71.5			198.77	0.00			274.37
BT2		1 197	1 236		<b>15.18</b>	2.00	96.5	0.00	72.84	-	-	0.00	0.00	-
BT2				63	<b>4.63</b>		74.6			0.12	-3.00			69.96
BT2				125	<b>4.23</b>		83.3			0.49	5.75			79.08
BT2				250	<b>6.26</b>		88.9			1.24	8.60			82.67
BT2				500	<b>2.36</b>		91.6			2.35	14.00			89.19
BT2				1000	<b>8.69</b>		91.1			4.57	5.00			82.41
BT2				2000	<b>2.80</b>		87.6			11.99	0.00			84.83
BT2				4000	<b>-32.23</b>		81.1			40.53	0.00			113.37
BT2				8000	<b>-145.93</b>		71.5			144.59	0.00			217.43
BT3		1 212	1 243		<b>15.11</b>	2.00	96.5	0.00	72.89	-	-	0.00	0.00	-
BT3				63	<b>4.58</b>		74.6			0.12	-3.00			70.01
BT3				125	<b>4.17</b>		83.3			0.50	5.76			79.14
BT3				250	<b>6.20</b>		88.9			1.24	8.60			82.73
BT3				500	<b>2.30</b>		91.6			2.36	14.00			89.25
BT3				1000	<b>8.62</b>		91.1			4.60	5.00			82.48
BT3				2000	<b>2.68</b>		87.6			12.05	0.00			84.94
BT3				4000	<b>-32.51</b>		81.1			40.76	0.00			113.65
BT3				8000	<b>-146.78</b>		71.5			145.39	0.00			218.27
BT4		1 312	1 338		<b>14.22</b>	2.00	96.5	0.00	73.53	-	-	0.00	0.00	-
BT4				63	<b>3.93</b>		74.6			0.13	-3.00			70.66
BT4				125	<b>3.44</b>		83.3			0.54	5.80			79.87
BT4				250	<b>5.46</b>		88.9			1.34	8.60			83.47
BT4				500	<b>1.48</b>		91.6			2.54	14.00			90.07
BT4				1000	<b>7.62</b>		91.1			4.95	5.00			83.48
BT4				2000	<b>1.11</b>		87.6			12.98	0.00			86.51
BT4				4000	<b>-36.28</b>		81.1			43.89	0.00			117.42
BT4				8000	<b>-158.58</b>		71.5			156.55	0.00			230.08
BT5		1 560	1 595		<b>12.10</b>	2.00	96.5	0.00	75.06	-	-	0.00	0.00	-
BT5				63	<b>2.37</b>		74.6			0.16	-3.00			72.22
BT5				125	<b>1.77</b>		83.3			0.64	5.84			81.54
BT5				250	<b>3.68</b>		88.9			1.60	8.60			85.25
BT5				500	<b>-0.54</b>		91.6			3.03	14.00			92.09
BT5				1000	<b>5.14</b>		91.1			5.90	5.00			85.96
BT5				2000	<b>-2.91</b>		87.6			15.48	0.00			90.53
BT5				4000	<b>-46.25</b>		81.1			52.33	0.00			127.39
BT5				8000	<b>-190.23</b>		71.5			186.67	0.00			261.72
BT6		2 074	2 095		<b>8.79</b>	2.00	96.5	0.00	77.42	-	-	0.00	0.00	-
BT6				63	<b>-0.04</b>		74.6			0.21	-3.00			74.63
BT6				125	<b>-0.80</b>		83.3			0.84	5.85			84.11
BT6				250	<b>0.81</b>		88.9			2.09	8.60			88.12
BT6				500	<b>-3.85</b>		91.6			3.98	14.00			95.40
BT6				1000	<b>0.93</b>		91.1			7.75	5.00			90.17
BT6				2000	<b>-10.12</b>		87.6			20.32	0.00			97.74
BT6				4000	<b>-64.99</b>		81.1			68.70	0.00			146.13
BT6				8000	<b>-251.00</b>		71.5			245.07	0.00			322.49
BT7		2 329	2 348		<b>7.40</b>	2.00	96.5	0.00	78.41	-	-	0.00	0.00	-
BT7				63	<b>-1.06</b>		74.6			0.23	-3.00			75.65
BT7				125	<b>-1.90</b>		83.3			0.94	5.85			85.20
BT7				250	<b>-0.43</b>		88.9			2.35	8.60			89.36
BT7				500	<b>-5.32</b>		91.6			4.46	14.00			96.87
BT7				1000	<b>-1.00</b>		91.1			8.69	5.00			92.10
BT7				2000	<b>-13.57</b>		87.6			22.77	0.00			101.19
BT7				4000	<b>-74.28</b>		81.1			77.01	0.00			155.42
BT7				8000	<b>-281.62</b>		71.5			274.70	0.00			353.11

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## DECIBEL - Detailed results

**Calculation:** DIURNO **Noise calculation model:** ISO 9613-2 General

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### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
Sum					21.29									
Sum				63	39.43									
Sum				125	28.80									
Sum				250	23.24									
Sum				500	13.75									
Sum				1000	16.53									
Sum				2000	8.63									
Sum				4000	-27.45									
Sum				8000	-140.10									

- Data undefined due to calculation with octave data

Wind speed: 6.0 m/s

### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT1		1 687	1 699		14.89	2.00	100.0	0.00	75.60	-	-	0.00	0.00	-
BT1				63	5.46		78.2			0.17	-3.00			72.77
BT1				125	4.79		86.9			0.68	5.85			82.13
BT1				250	6.63		92.5			1.70	8.60			85.90
BT1				500	2.25		95.1			3.23	14.00			92.83
BT1				1000	7.69		94.6			6.29	5.00			86.89
BT1				2000	-1.08		91.0			16.48	0.00			92.08
BT1				4000	-46.99		84.3			55.72	0.00			131.33
BT1				8000	-199.82		74.6			198.77	0.00			274.37
BT2		1 197	1 236		18.72	2.00	100.0	0.00	72.84	-	-	0.00	0.00	-
BT2				63	8.27		78.2			0.12	-3.00			69.96
BT2				125	7.84		86.9			0.49	5.75			79.08
BT2				250	9.86		92.5			1.24	8.60			82.67
BT2				500	5.89		95.1			2.35	14.00			89.19
BT2				1000	12.16		94.6			4.57	5.00			82.41
BT2				2000	6.18		91.0			11.99	0.00			84.83
BT2				4000	-29.03		84.3			40.53	0.00			113.37
BT2				8000	-142.87		74.6			144.59	0.00			217.43
BT3		1 212	1 243		18.65	2.00	100.0	0.00	72.89	-	-	0.00	0.00	-
BT3				63	8.22		78.2			0.12	-3.00			70.01
BT3				125	7.78		86.9			0.50	5.76			79.14
BT3				250	9.80		92.5			1.24	8.60			82.73
BT3				500	5.83		95.1			2.36	14.00			89.25
BT3				1000	12.09		94.6			4.60	5.00			82.48
BT3				2000	6.06		91.0			12.05	0.00			84.94
BT3				4000	-29.31		84.3			40.76	0.00			113.65
BT3				8000	-143.72		74.6			145.39	0.00			218.27
BT4		1 312	1 338		17.76	2.00	100.0	0.00	73.53	-	-	0.00	0.00	-
BT4				63	7.57		78.2			0.13	-3.00			70.66
BT4				125	7.05		86.9			0.54	5.80			79.87
BT4				250	9.06		92.5			1.34	8.60			83.47
BT4				500	5.01		95.1			2.54	14.00			90.07
BT4				1000	11.10		94.6			4.95	5.00			83.48
BT4				2000	4.49		91.0			12.98	0.00			86.51
BT4				4000	-33.08		84.3			43.89	0.00			117.42
BT4				8000	-155.52		74.6			156.55	0.00			230.08
BT5		1 560	1 595		15.65	2.00	100.0	0.00	75.06	-	-	0.00	0.00	-
BT5				63	6.01		78.2			0.16	-3.00			72.22
BT5				125	5.38		86.9			0.64	5.84			81.54
BT5				250	7.28		92.5			1.60	8.60			85.25
BT5				500	2.99		95.1			3.03	14.00			92.09
BT5				1000	8.62		94.6			5.90	5.00			85.96
BT5				2000	0.47		91.0			15.48	0.00			90.53
BT5				4000	-43.05		84.3			52.33	0.00			127.39
BT5				8000	-187.17		74.6			186.67	0.00			261.72
BT6		2 074	2 095		12.36	2.00	100.0	0.00	77.42	-	-	0.00	0.00	-
BT6				63	3.60		78.2			0.21	-3.00			74.63
BT6				125	2.81		86.9			0.84	5.85			84.11

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## DECIBEL - Detailed results

**Calculation:** DIURNO **Noise calculation model:** ISO 9613-2 General

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### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT6				250	4.41		92.5			2.09	8.60			88.12
BT6				500	-0.32		95.1			3.98	14.00			95.40
BT6				1000	4.40		94.6			7.75	5.00			90.17
BT6				2000	-6.74		91.0			20.32	0.00			97.74
BT6				4000	-61.79		84.3			68.70	0.00			146.13
BT6				8000	-247.93		74.6			245.07	0.00			322.49
BT7		2 329	2 348		10.98	2.00	100.0	0.00	78.41	-	-	0.00	0.00	-
BT7				63	2.58		78.2			0.23	-3.00			75.65
BT7				125	1.72		86.9			0.94	5.85			85.20
BT7				250	3.17		92.5			2.35	8.60			89.36
BT7				500	-1.79		95.1			4.46	14.00			96.87
BT7				1000	2.48		94.6			8.69	5.00			92.10
BT7				2000	-10.19		91.0			22.77	0.00			101.19
BT7				4000	-71.08		84.3			77.01	0.00			155.42
BT7				8000	-278.55		74.6			274.70	0.00			353.11
Sum					24.84									
Sum				63	43.07									
Sum				125	32.42									
Sum				250	26.84									
Sum				500	17.28									
Sum				1000	20.01									
Sum				2000	12.00									
Sum				4000	-24.25									
Sum				8000	-137.03									

- Data undefined due to calculation with octave data

Wind speed: 7.0 m/s

### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT1		1 687	1 699		18.12	2.00	103.2	0.00	75.60	-	-	0.00	0.00	-
BT1				63	8.72		81.5			0.17	-3.00			72.77
BT1				125	8.07		90.2			0.68	5.85			82.13
BT1				250	9.88		95.8			1.70	8.60			85.90
BT1				500	5.45		98.3			3.23	14.00			92.83
BT1				1000	10.89		97.8			6.29	5.00			86.89
BT1				2000	2.00		94.1			16.48	0.00			92.08
BT1				4000	-43.95		87.4			55.72	0.00			131.33
BT1				8000	-196.86		77.5			198.77	0.00			274.37
BT2		1 197	1 236		21.94	2.00	103.2	0.00	72.84	-	-	0.00	0.00	-
BT2				63	11.53		81.5			0.12	-3.00			69.96
BT2				125	11.13		90.2			0.49	5.75			79.08
BT2				250	13.11		95.8			1.24	8.60			82.67
BT2				500	9.09		98.3			2.35	14.00			89.19
BT2				1000	15.36		97.8			4.57	5.00			82.41
BT2				2000	9.25		94.1			11.99	0.00			84.83
BT2				4000	-25.99		87.4			40.53	0.00			113.37
BT2				8000	-139.91		77.5			144.59	0.00			217.43
BT3		1 212	1 243		21.87	2.00	103.2	0.00	72.89	-	-	0.00	0.00	-
BT3				63	11.48		81.5			0.12	-3.00			70.01
BT3				125	11.07		90.2			0.50	5.76			79.14
BT3				250	13.06		95.8			1.24	8.60			82.73
BT3				500	9.03		98.3			2.36	14.00			89.25
BT3				1000	15.29		97.8			4.60	5.00			82.48
BT3				2000	9.14		94.1			12.05	0.00			84.94
BT3				4000	-26.27		87.4			40.76	0.00			113.65
BT3				8000	-140.76		77.5			145.39	0.00			218.27
BT4		1 312	1 338		20.99	2.00	103.2	0.00	73.53	-	-	0.00	0.00	-
BT4				63	10.83		81.5			0.13	-3.00			70.66
BT4				125	10.34		90.2			0.54	5.80			79.87
BT4				250	12.32		95.8			1.34	8.60			83.47
BT4				500	8.21		98.3			2.54	14.00			90.07
BT4				1000	14.30		97.8			4.95	5.00			83.48

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## DECIBEL - Detailed results

**Calculation:** DIURNO **Noise calculation model:** ISO 9613-2 General

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### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT4				2000	7.57		94.1			12.98	0.00			86.51
BT4				4000	-30.04		87.4			43.89	0.00			117.42
BT4				8000	-152.57		77.5			156.55	0.00			230.08
BT5		1 560	1 595		18.88	2.00	103.2	0.00	75.06	-	-	0.00	0.00	-
BT5				63	9.27		81.5			0.16	-3.00			72.22
BT5				125	8.67		90.2			0.64	5.84			81.54
BT5				250	10.53		95.8			1.60	8.60			85.25
BT5				500	6.19		98.3			3.03	14.00			92.09
BT5				1000	11.82		97.8			5.90	5.00			85.96
BT5				2000	3.55		94.1			15.48	0.00			90.53
BT5				4000	-40.01		87.4			52.33	0.00			127.39
BT5				8000	-184.21		77.5			186.67	0.00			261.72
BT6		2 074	2 095		15.60	2.00	103.2	0.00	77.42	-	-	0.00	0.00	-
BT6				63	6.86		81.5			0.21	-3.00			74.63
BT6				125	6.10		90.2			0.84	5.85			84.11
BT6				250	7.67		95.8			2.09	8.60			88.12
BT6				500	2.88		98.3			3.98	14.00			95.40
BT6				1000	7.60		97.8			7.75	5.00			90.17
BT6				2000	-3.66		94.1			20.32	0.00			97.74
BT6				4000	-58.75		87.4			68.70	0.00			146.13
BT6				8000	-244.98		77.5			245.07	0.00			322.49
BT7		2 329	2 348		14.22	2.00	103.2	0.00	78.41	-	-	0.00	0.00	-
BT7				63	5.84		81.5			0.23	-3.00			75.65
BT7				125	5.00		90.2			0.94	5.85			85.20
BT7				250	6.42		95.8			2.35	8.60			89.36
BT7				500	1.41		98.3			4.46	14.00			96.87
BT7				1000	5.68		97.8			8.69	5.00			92.10
BT7				2000	-7.11		94.1			22.77	0.00			101.19
BT7				4000	-68.04		87.4			77.01	0.00			155.42
BT7				8000	-275.60		77.5			274.70	0.00			353.11
Sum					28.06									
Sum				63	46.33									
Sum				125	35.70									
Sum				250	30.09									
Sum				500	20.48									
Sum				1000	23.21									
Sum				2000	15.08									
Sum				4000	-21.21									
Sum				8000	-134.08									

- Data undefined due to calculation with octave data

Wind speed: 8.0 m/s

### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT1		1 687	1 699		20.96	2.00	106.0	0.00	75.60	-	-	0.00	0.00	-
BT1				63	11.62		84.4			0.17	-3.00			72.77
BT1				125	10.97		93.1			0.68	5.85			82.13
BT1				250	12.75		98.7			1.70	8.60			85.90
BT1				500	8.31		101.1			3.23	14.00			92.83
BT1				1000	13.63		100.5			6.29	5.00			86.89
BT1				2000	4.70		96.8			16.48	0.00			92.08
BT1				4000	-41.35		90.0			55.72	0.00			131.33
BT1				8000	-194.37		80.0			198.77	0.00			274.37
BT2		1 197	1 236		24.76	2.00	106.0	0.00	72.84	-	-	0.00	0.00	-
BT2				63	14.43		84.4			0.12	-3.00			69.96
BT2				125	14.03		93.1			0.49	5.75			79.08
BT2				250	15.98		98.7			1.24	8.60			82.67
BT2				500	11.96		101.1			2.35	14.00			89.19
BT2				1000	18.10		100.5			4.57	5.00			82.41
BT2				2000	11.95		96.8			11.99	0.00			84.83
BT2				4000	-23.39		90.0			40.53	0.00			113.37
BT2				8000	-137.42		80.0			144.59	0.00			217.43

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## DECIBEL - Detailed results

**Calculation:** DIURNO **Noise calculation model:** ISO 9613-2 General

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### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT3		1 212	1 243		<b>24.69</b>	2.00	106.0	0.00	72.89	-	-	0.00	0.00	-
BT3				63	<b>14.38</b>		84.4			0.12	-3.00			70.01
BT3				125	<b>13.97</b>		93.1			0.50	5.76			79.14
BT3				250	<b>15.92</b>		98.7			1.24	8.60			82.73
BT3				500	<b>11.90</b>		101.1			2.36	14.00			89.25
BT3				1000	<b>18.03</b>		100.5			4.60	5.00			82.48
BT3				2000	<b>11.84</b>		96.8			12.05	0.00			84.94
BT3				4000	<b>-23.67</b>		90.0			40.76	0.00			113.65
BT3				8000	<b>-138.27</b>		80.0			145.39	0.00			218.27
BT4		1 312	1 338		<b>23.81</b>	2.00	106.0	0.00	73.53	-	-	0.00	0.00	-
BT4				63	<b>13.73</b>		84.4			0.13	-3.00			70.66
BT4				125	<b>13.24</b>		93.1			0.54	5.80			79.87
BT4				250	<b>15.19</b>		98.7			1.34	8.60			83.47
BT4				500	<b>11.07</b>		101.1			2.54	14.00			90.07
BT4				1000	<b>17.03</b>		100.5			4.95	5.00			83.48
BT4				2000	<b>10.27</b>		96.8			12.98	0.00			86.51
BT4				4000	<b>-27.44</b>		90.0			43.89	0.00			117.42
BT4				8000	<b>-150.08</b>		80.0			156.55	0.00			230.08
BT5		1 560	1 595		<b>21.71</b>	2.00	106.0	0.00	75.06	-	-	0.00	0.00	-
BT5				63	<b>12.17</b>		84.4			0.16	-3.00			72.22
BT5				125	<b>11.57</b>		93.1			0.64	5.84			81.54
BT5				250	<b>13.40</b>		98.7			1.60	8.60			85.25
BT5				500	<b>9.06</b>		101.1			3.03	14.00			92.09
BT5				1000	<b>14.55</b>		100.5			5.90	5.00			85.96
BT5				2000	<b>6.25</b>		96.8			15.48	0.00			90.53
BT5				4000	<b>-37.41</b>		90.0			52.33	0.00			127.39
BT5				8000	<b>-181.72</b>		80.0			186.67	0.00			261.72
BT6		2 074	2 095		<b>18.44</b>	2.00	106.0	0.00	77.42	-	-	0.00	0.00	-
BT6				63	<b>9.76</b>		84.4			0.21	-3.00			74.63
BT6				125	<b>9.00</b>		93.1			0.84	5.85			84.11
BT6				250	<b>10.54</b>		98.7			2.09	8.60			88.12
BT6				500	<b>5.74</b>		101.1			3.98	14.00			95.40
BT6				1000	<b>10.34</b>		100.5			7.75	5.00			90.17
BT6				2000	<b>-0.96</b>		96.8			20.32	0.00			97.74
BT6				4000	<b>-56.15</b>		90.0			68.70	0.00			146.13
BT6				8000	<b>-242.49</b>		80.0			245.07	0.00			322.49
BT7		2 329	2 348		<b>17.07</b>	2.00	106.0	0.00	78.41	-	-	0.00	0.00	-
BT7				63	<b>8.74</b>		84.4			0.23	-3.00			75.65
BT7				125	<b>7.90</b>		93.1			0.94	5.85			85.20
BT7				250	<b>9.29</b>		98.7			2.35	8.60			89.36
BT7				500	<b>4.27</b>		101.1			4.46	14.00			96.87
BT7				1000	<b>8.41</b>		100.5			8.69	5.00			92.10
BT7				2000	<b>-4.41</b>		96.8			22.77	0.00			101.19
BT7				4000	<b>-65.44</b>		90.0			77.01	0.00			155.42
BT7				8000	<b>-273.11</b>		80.0			274.70	0.00			353.11
Sum					<b>30.89</b>									
Sum				63	<b>49.23</b>									
Sum				125	<b>38.60</b>									
Sum				250	<b>32.96</b>									
Sum				500	<b>23.35</b>									
Sum				1000	<b>25.94</b>									
Sum				2000	<b>17.78</b>									
Sum				4000	<b>-18.61</b>									
Sum				8000	<b>-131.59</b>									

- Data undefined due to calculation with octave data

Wind speed: 9.0 m/s

### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT1		1 687	1 699		<b>21.89</b>	2.00	106.9	0.00	75.60	-	-	0.00	0.00	-
BT1				63	<b>12.62</b>		85.4			0.17	-3.00			72.77
BT1				125	<b>11.92</b>		94.1			0.68	5.85			82.13

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## DECIBEL - Detailed results

**Calculation:** DIURNO **Noise calculation model:** ISO 9613-2 General

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### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT1				250	13.68		99.6			1.70	8.60			85.90
BT1				500	9.21		102.0			3.23	14.00			92.83
BT1				1000	14.53		101.4			6.29	5.00			86.89
BT1				2000	5.50		97.6			16.48	0.00			92.08
BT1				4000	-40.56		90.8			55.72	0.00			131.33
BT1				8000	-193.70		80.7			198.77	0.00			274.37
BT2	1 197		1 236		25.68	2.00	106.9	0.00	72.84	-	-	0.00	0.00	-
BT2				63	15.43		85.4			0.12	-3.00			69.96
BT2				125	14.97		94.1			0.49	5.75			79.08
BT2				250	16.91		99.6			1.24	8.60			82.67
BT2				500	12.86		102.0			2.35	14.00			89.19
BT2				1000	19.00		101.4			4.57	5.00			82.41
BT2				2000	12.75		97.6			11.99	0.00			84.83
BT2				4000	-22.61		90.8			40.53	0.00			113.37
BT2				8000	-136.75		80.7			144.59	0.00			217.43
BT3	1 212		1 243		25.61	2.00	106.9	0.00	72.89	-	-	0.00	0.00	-
BT3				63	15.38		85.4			0.12	-3.00			70.01
BT3				125	14.91		94.1			0.50	5.76			79.14
BT3				250	16.86		99.6			1.24	8.60			82.73
BT3				500	12.80		102.0			2.36	14.00			89.25
BT3				1000	18.93		101.4			4.60	5.00			82.48
BT3				2000	12.64		97.6			12.05	0.00			84.94
BT3				4000	-22.88		90.8			40.76	0.00			113.65
BT3				8000	-137.60		80.7			145.39	0.00			218.27
BT4	1 312		1 338		24.73	2.00	106.9	0.00	73.53	-	-	0.00	0.00	-
BT4				63	14.73		85.4			0.13	-3.00			70.66
BT4				125	14.18		94.1			0.54	5.80			79.87
BT4				250	16.12		99.6			1.34	8.60			83.47
BT4				500	11.97		102.0			2.54	14.00			90.07
BT4				1000	17.93		101.4			4.95	5.00			83.48
BT4				2000	11.07		97.6			12.98	0.00			86.51
BT4				4000	-26.65		90.8			43.89	0.00			117.42
BT4				8000	-149.40		80.7			156.55	0.00			230.08
BT5	1 560		1 595		22.64	2.00	106.9	0.00	75.06	-	-	0.00	0.00	-
BT5				63	13.17		85.4			0.16	-3.00			72.22
BT5				125	12.51		94.1			0.64	5.84			81.54
BT5				250	14.33		99.6			1.60	8.60			85.25
BT5				500	9.96		102.0			3.03	14.00			92.09
BT5				1000	15.45		101.4			5.90	5.00			85.96
BT5				2000	7.05		97.6			15.48	0.00			90.53
BT5				4000	-36.62		90.8			52.33	0.00			127.39
BT5				8000	-181.05		80.7			186.67	0.00			261.72
BT6	2 074		2 095		19.38	2.00	106.9	0.00	77.42	-	-	0.00	0.00	-
BT6				63	10.76		85.4			0.21	-3.00			74.63
BT6				125	9.94		94.1			0.84	5.85			84.11
BT6				250	11.47		99.6			2.09	8.60			88.12
BT6				500	6.64		102.0			3.98	14.00			95.40
BT6				1000	11.24		101.4			7.75	5.00			90.17
BT6				2000	-0.16		97.6			20.32	0.00			97.74
BT6				4000	-55.36		90.8			68.70	0.00			146.13
BT6				8000	-241.82		80.7			245.07	0.00			322.49
BT7	2 329		2 348		18.01	2.00	106.9	0.00	78.41	-	-	0.00	0.00	-
BT7				63	9.74		85.4			0.23	-3.00			75.65
BT7				125	8.85		94.1			0.94	5.85			85.20
BT7				250	10.22		99.6			2.35	8.60			89.36
BT7				500	5.17		102.0			4.46	14.00			96.87
BT7				1000	9.31		101.4			8.69	5.00			92.10
BT7				2000	-3.61		97.6			22.77	0.00			101.19
BT7				4000	-64.66		90.8			77.01	0.00			155.42
BT7				8000	-272.44		80.7			274.70	0.00			353.11
Sum					31.81									
Sum				63	50.23									
Sum				125	39.55									

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## DECIBEL - Detailed results

**Calculation:** DIURNO **Noise calculation model:** ISO 9613-2 General

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### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
Sum				250	<b>33.89</b>									
Sum				500	<b>24.25</b>									
Sum				1000	<b>26.84</b>									
Sum				2000	<b>18.58</b>									
Sum				4000	<b>-17.82</b>									
Sum				8000	<b>-130.92</b>									

- Data undefined due to calculation with octave data

Wind speed: 10.0 m/s

### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT1		1 687	1 699	63	<b>21.86</b>	2.00	106.9	0.00	75.60	-	-	0.00	0.00	-
BT1				125	<b>12.52</b>		85.3			0.17	-3.00			72.77
BT1				250	<b>11.89</b>		94.0			0.68	5.85			82.13
BT1				500	<b>13.65</b>		99.6			1.70	8.60			85.90
BT1				1000	<b>9.21</b>		102.0			3.23	14.00			92.83
BT1				2000	<b>14.53</b>		101.4			6.29	5.00			86.89
BT1				4000	<b>5.60</b>		97.7			16.48	0.00			92.08
BT1				8000	<b>-40.46</b>		90.9			55.72	0.00			131.33
BT1					<b>-193.56</b>		80.8			198.77	0.00			274.37
BT2		1 197	1 236	63	<b>25.66</b>	2.00	106.9	0.00	72.84	-	-	0.00	0.00	-
BT2				125	<b>15.33</b>		85.3			0.12	-3.00			69.96
BT2				250	<b>14.94</b>		94.0			0.49	5.75			79.08
BT2				500	<b>16.88</b>		99.6			1.24	8.60			82.67
BT2				1000	<b>12.86</b>		102.0			2.35	14.00			89.19
BT2				2000	<b>19.00</b>		101.4			4.57	5.00			82.41
BT2				4000	<b>12.85</b>		97.7			11.99	0.00			84.83
BT2				8000	<b>-22.51</b>		90.9			40.53	0.00			113.37
BT2					<b>-136.61</b>		80.8			144.59	0.00			217.43
BT3		1 212	1 243	63	<b>25.59</b>	2.00	106.9	0.00	72.89	-	-	0.00	0.00	-
BT3				125	<b>15.28</b>		85.3			0.12	-3.00			70.01
BT3				250	<b>14.88</b>		94.0			0.50	5.76			79.14
BT3				500	<b>16.82</b>		99.6			1.24	8.60			82.73
BT3				1000	<b>12.80</b>		102.0			2.36	14.00			89.25
BT3				2000	<b>18.93</b>		101.4			4.60	5.00			82.48
BT3				4000	<b>12.74</b>		97.7			12.05	0.00			84.94
BT3				8000	<b>-22.78</b>		90.9			40.76	0.00			113.65
BT3					<b>-137.46</b>		80.8			145.39	0.00			218.27
BT4		1 312	1 338	63	<b>24.71</b>	2.00	106.9	0.00	73.53	-	-	0.00	0.00	-
BT4				125	<b>14.63</b>		85.3			0.13	-3.00			70.66
BT4				250	<b>14.15</b>		94.0			0.54	5.80			79.87
BT4				500	<b>16.09</b>		99.6			1.34	8.60			83.47
BT4				1000	<b>11.97</b>		102.0			2.54	14.00			90.07
BT4				2000	<b>17.93</b>		101.4			4.95	5.00			83.48
BT4				4000	<b>11.17</b>		97.7			12.98	0.00			86.51
BT4				8000	<b>-26.55</b>		90.9			43.89	0.00			117.42
BT4					<b>-149.27</b>		80.8			156.55	0.00			230.08
BT5		1 560	1 595	63	<b>22.61</b>	2.00	106.9	0.00	75.06	-	-	0.00	0.00	-
BT5				125	<b>13.07</b>		85.3			0.16	-3.00			72.22
BT5				250	<b>12.48</b>		94.0			0.64	5.84			81.54
BT5				500	<b>14.30</b>		99.6			1.60	8.60			85.25
BT5				1000	<b>9.96</b>		102.0			3.03	14.00			92.09
BT5				2000	<b>15.45</b>		101.4			5.90	5.00			85.96
BT5				4000	<b>7.15</b>		97.7			15.48	0.00			90.53
BT5				8000	<b>-36.52</b>		90.9			52.33	0.00			127.39
BT5					<b>-180.91</b>		80.8			186.67	0.00			261.72
BT6		2 074	2 095	63	<b>19.35</b>	2.00	106.9	0.00	77.42	-	-	0.00	0.00	-
BT6				125	<b>10.66</b>		85.3			0.21	-3.00			74.63
BT6				250	<b>9.91</b>		94.0			0.84	5.85			84.11
BT6				500	<b>11.44</b>		99.6			2.09	8.60			88.12
BT6				1000	<b>6.64</b>		102.0			3.98	14.00			95.40
BT6					<b>11.24</b>		101.4			7.75	5.00			90.17

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Project:

230515 Modello Borgo Taro per acustica

Licensed user:

MORI MANTOVANI ASSOCIATI SRL

VIA STRASBURGO 18A

IT-43123 PARMA

+390521239944

GIULIO BARTOLI / giulio@morimantovani.it

Calculated:

02/06/2023 12:50/3.6.366

## DECIBEL - Detailed results

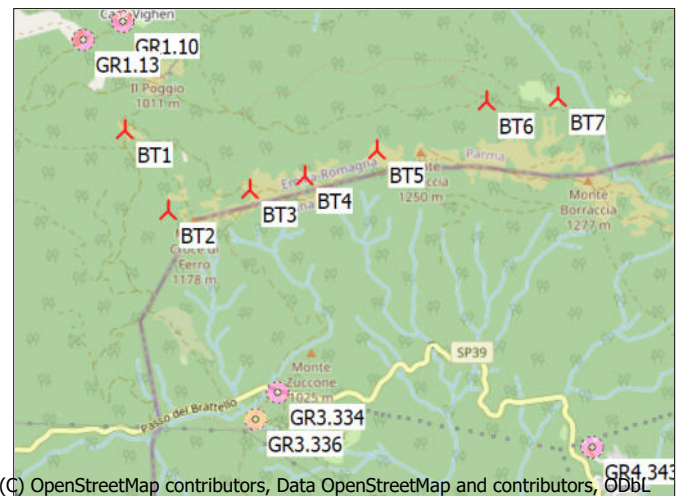
**Calculation:** DIURNO **Noise calculation model:** ISO 9613-2 General

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### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT6				2000	-0.06		97.7			20.32	0.00			97.74
BT6				4000	-55.26		90.9			68.70	0.00			146.13
BT6				8000	-241.68		80.8			245.07	0.00			322.49
BT7		2 329	2 348		17.97	2.00	106.9	0.00	78.41	-	-	0.00	0.00	-
BT7				63	9.64		85.3			0.23	-3.00			75.65
BT7				125	8.82		94.0			0.94	5.85			85.20
BT7				250	10.19		99.6			2.35	8.60			89.36
BT7				500	5.17		102.0			4.46	14.00			96.87
BT7				1000	9.31		101.4			8.69	5.00			92.10
BT7				2000	-3.51		97.7			22.77	0.00			101.19
BT7				4000	-64.56		90.9			77.01	0.00			155.42
BT7				8000	-272.30		80.8			274.70	0.00			353.11
Sum					31.79									
Sum				63	50.13									
Sum				125	39.52									
Sum				250	33.86									
Sum				500	24.25									
Sum				1000	26.84									
Sum				2000	18.68									
Sum				4000	-17.72									
Sum				8000	-130.78									

- Data undefined due to calculation with octave data



(C) OpenStreetMap contributors, Data OpenStreetMap and contributors, ODbL

Scale 1:40 000

New WTG

Noise sensitive area

### Noise sensitive area: GR4.343 Bratto

Wind speed: 3.0 m/s

### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT1		3 000	3 013		0.64	2.00	93.2	0.00	80.58	-	-	0.00	0.00	-
BT1				63	-7.36		70.5			0.30	-3.00			77.88
BT1				125	-8.26		79.4			1.21	5.85			87.63
BT1				250	-6.98		85.2			3.01	8.60			92.19
BT1				500	-12.22		88.1			5.72	14.00			100.30
BT1				1000	-8.73		88.0			11.15	5.00			96.73
BT1				2000	-24.97		84.8			29.22	0.00			109.80
BT1				4000	-100.73		78.7			98.81	0.00			179.39
BT1				8000	-363.60		69.5			352.47	0.00			433.05
BT2		2 572	2 601		2.47	2.00	93.2	0.00	79.30	-	-	0.00	0.00	-
BT2				63	-6.04		70.5			0.26	-3.00			76.56

To be continued on next page...

Project:

**230515 Modello Borgo Taro per acustica**

Licensed user:

**MORI MANTOVANI ASSOCIATI SRL**

VIA STRASBURGO 18A

IT-43123 PARMA

+390521239944

GIULIO BARTOLI / giulio@morimantovani.it

Calculated:

02/06/2023 12:50/3.6.366

## DECIBEL - Detailed results

**Calculation: DIURNO Noise calculation model: ISO 9613-2 General**

...continued from previous page

**WTG**

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT2				125	<b>-6.82</b>		79.4			1.04	5.85			86.19
BT2				250	<b>-5.30</b>		85.2			2.60	8.60			90.50
BT2				500	<b>-10.16</b>		88.1			4.94	14.00			98.24
BT2				1000	<b>-5.93</b>		88.0			9.62	5.00			93.93
BT2				2000	<b>-19.70</b>		84.8			25.23	0.00			104.53
BT2				4000	<b>-85.96</b>		78.7			85.31	0.00			164.61
BT2				8000	<b>-314.16</b>		69.5			304.31	0.00			383.62
BT3	2 271	2 298			<b>4.02</b>	2.00	93.2	0.00	78.23	-	-	0.00	0.00	-
BT3				63	<b>-4.94</b>		70.5			0.23	-3.00			75.46
BT3				125	<b>-5.62</b>		79.4			0.92	5.85			85.00
BT3				250	<b>-3.92</b>		85.2			2.30	8.60			89.12
BT3				500	<b>-8.51</b>		88.1			4.37	14.00			96.59
BT3				1000	<b>-3.73</b>		88.0			8.50	5.00			91.73
BT3				2000	<b>-15.69</b>		84.8			22.29	0.00			100.52
BT3				4000	<b>-74.94</b>		78.7			75.37	0.00			153.60
BT3				8000	<b>-277.64</b>		69.5			268.86	0.00			347.09
BT4	2 091	2 119			<b>5.03</b>	2.00	93.2	0.00	77.52	-	-	0.00	0.00	-
BT4				63	<b>-4.22</b>		70.5			0.21	-3.00			74.74
BT4				125	<b>-4.85</b>		79.4			0.85	5.85			84.22
BT4				250	<b>-3.04</b>		85.2			2.12	8.60			88.24
BT4				500	<b>-7.46</b>		88.1			4.03	14.00			95.55
BT4				1000	<b>-2.37</b>		88.0			7.84	5.00			90.36
BT4				2000	<b>-13.25</b>		84.8			20.56	0.00			98.08
BT4				4000	<b>-68.37</b>		78.7			69.51	0.00			147.03
BT4				8000	<b>-256.02</b>		69.5			247.95	0.00			325.47
BT5	1 942	1 986			<b>5.84</b>	2.00	93.2	0.00	76.96	-	-	0.00	0.00	-
BT5				63	<b>-3.64</b>		70.5			0.20	-3.00			74.16
BT5				125	<b>-4.23</b>		79.4			0.79	5.85			83.60
BT5				250	<b>-2.34</b>		85.2			1.99	8.60			87.54
BT5				500	<b>-6.64</b>		88.1			3.77	14.00			94.73
BT5				1000	<b>-1.31</b>		88.0			7.35	5.00			89.31
BT5				2000	<b>-11.39</b>		84.8			19.26	0.00			96.22
BT5				4000	<b>-63.44</b>		78.7			65.14	0.00			142.10
BT5				8000	<b>-239.85</b>		69.5			232.35	0.00			309.31
BT6	1 912	1 948			<b>6.08</b>	2.00	93.2	0.00	76.79	-	-	0.00	0.00	-
BT6				63	<b>-3.47</b>		70.5			0.19	-3.00			73.99
BT6				125	<b>-4.05</b>		79.4			0.78	5.85			83.42
BT6				250	<b>-2.13</b>		85.2			1.95	8.60			87.34
BT6				500	<b>-6.41</b>		88.1			3.70	14.00			94.49
BT6				1000	<b>-1.01</b>		88.0			7.21	5.00			89.00
BT6				2000	<b>-10.86</b>		84.8			18.90	0.00			95.69
BT6				4000	<b>-62.03</b>		78.7			63.90	0.00			140.69
BT6				8000	<b>-235.27</b>		69.5			227.93	0.00			304.73
BT7	1 859	1 897			<b>6.42</b>	2.00	93.2	0.00	76.56	-	-	0.00	0.00	-
BT7				63	<b>-3.23</b>		70.5			0.19	-3.00			73.75
BT7				125	<b>-3.79</b>		79.4			0.76	5.85			83.17
BT7				250	<b>-1.85</b>		85.2			1.90	8.60			87.06
BT7				500	<b>-6.08</b>		88.1			3.60	14.00			94.16
BT7				1000	<b>-0.58</b>		88.0			7.02	5.00			88.58
BT7				2000	<b>-10.13</b>		84.8			18.40	0.00			94.96
BT7				4000	<b>-60.12</b>		78.7			62.21	0.00			138.77
BT7				8000	<b>-229.03</b>		69.5			221.92	0.00			298.48
Sum					<b>13.20</b>									
Sum				63	<b>32.16</b>									
Sum				125	<b>21.42</b>									
Sum				250	<b>15.72</b>									
Sum				500	<b>5.88</b>									
Sum				1000	<b>7.80</b>									
Sum				2000	<b>-3.89</b>									
Sum				4000	<b>-55.51</b>									
Sum				8000	<b>-224.72</b>									

- Data undefined due to calculation with octave data

## DECIBEL - Detailed results

**Calculation:** DIURNO **Noise calculation model:** ISO 9613-2 General

Wind speed: 4.0 m/s

### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT1		3 000	3 013		<b>1.24</b>	2.00	93.6	0.00	80.58	-	-	0.00	0.00	-
BT1				63	<b>-6.59</b>		71.3			0.30	-3.00			77.88
BT1				125	<b>-7.56</b>		80.1			1.21	5.85			87.63
BT1				250	<b>-6.38</b>		85.8			3.01	8.60			92.19
BT1				500	<b>-11.72</b>		88.6			5.72	14.00			100.30
BT1				1000	<b>-8.42</b>		88.3			11.15	5.00			96.73
BT1				2000	<b>-24.82</b>		85.0			29.22	0.00			109.80
BT1				4000	<b>-100.66</b>		78.7			98.81	0.00			179.39
BT1				8000	<b>-363.65</b>		69.4			352.47	0.00			433.05
BT2		2 572	2 601		<b>3.05</b>	2.00	93.6	0.00	79.30	-	-	0.00	0.00	-
BT2				63	<b>-5.27</b>		71.3			0.26	-3.00			76.56
BT2				125	<b>-6.12</b>		80.1			1.04	5.85			86.19
BT2				250	<b>-4.70</b>		85.8			2.60	8.60			90.50
BT2				500	<b>-9.66</b>		88.6			4.94	14.00			98.24
BT2				1000	<b>-5.62</b>		88.3			9.62	5.00			93.93
BT2				2000	<b>-19.56</b>		85.0			25.23	0.00			104.53
BT2				4000	<b>-85.89</b>		78.7			85.31	0.00			164.61
BT2				8000	<b>-314.21</b>		69.4			304.31	0.00			383.62
BT3		2 271	2 298		<b>4.58</b>	2.00	93.6	0.00	78.23	-	-	0.00	0.00	-
BT3				63	<b>-4.17</b>		71.3			0.23	-3.00			75.46
BT3				125	<b>-4.92</b>		80.1			0.92	5.85			85.00
BT3				250	<b>-3.32</b>		85.8			2.30	8.60			89.12
BT3				500	<b>-8.01</b>		88.6			4.37	14.00			96.59
BT3				1000	<b>-3.43</b>		88.3			8.50	5.00			91.73
BT3				2000	<b>-15.54</b>		85.0			22.29	0.00			100.52
BT3				4000	<b>-74.87</b>		78.7			75.37	0.00			153.60
BT3				8000	<b>-277.69</b>		69.4			268.86	0.00			347.09
BT4		2 091	2 119		<b>5.58</b>	2.00	93.6	0.00	77.52	-	-	0.00	0.00	-
BT4				63	<b>-3.44</b>		71.3			0.21	-3.00			74.74
BT4				125	<b>-4.15</b>		80.1			0.85	5.85			84.22
BT4				250	<b>-2.44</b>		85.8			2.12	8.60			88.24
BT4				500	<b>-6.96</b>		88.6			4.03	14.00			95.55
BT4				1000	<b>-2.06</b>		88.3			7.84	5.00			90.36
BT4				2000	<b>-13.10</b>		85.0			20.56	0.00			98.08
BT4				4000	<b>-68.31</b>		78.7			69.51	0.00			147.03
BT4				8000	<b>-256.06</b>		69.4			247.95	0.00			325.47
BT5		1 942	1 986		<b>6.38</b>	2.00	93.6	0.00	76.96	-	-	0.00	0.00	-
BT5				63	<b>-2.87</b>		71.3			0.20	-3.00			74.16
BT5				125	<b>-3.53</b>		80.1			0.79	5.85			83.60
BT5				250	<b>-1.74</b>		85.8			1.99	8.60			87.54
BT5				500	<b>-6.14</b>		88.6			3.77	14.00			94.73
BT5				1000	<b>-1.00</b>		88.3			7.35	5.00			89.31
BT5				2000	<b>-11.25</b>		85.0			19.26	0.00			96.22
BT5				4000	<b>-63.37</b>		78.7			65.14	0.00			142.10
BT5				8000	<b>-239.90</b>		69.4			232.35	0.00			309.31
BT6		1 912	1 948		<b>6.62</b>	2.00	93.6	0.00	76.79	-	-	0.00	0.00	-
BT6				63	<b>-2.70</b>		71.3			0.19	-3.00			73.99
BT6				125	<b>-3.35</b>		80.1			0.78	5.85			83.42
BT6				250	<b>-1.53</b>		85.8			1.95	8.60			87.34
BT6				500	<b>-5.91</b>		88.6			3.70	14.00			94.49
BT6				1000	<b>-0.70</b>		88.3			7.21	5.00			89.00
BT6				2000	<b>-10.71</b>		85.0			18.90	0.00			95.69
BT6				4000	<b>-61.96</b>		78.7			63.90	0.00			140.69
BT6				8000	<b>-235.32</b>		69.4			227.93	0.00			304.73
BT7		1 859	1 897		<b>6.95</b>	2.00	93.6	0.00	76.56	-	-	0.00	0.00	-
BT7				63	<b>-2.46</b>		71.3			0.19	-3.00			73.75
BT7				125	<b>-3.09</b>		80.1			0.76	5.85			83.17
BT7				250	<b>-1.25</b>		85.8			1.90	8.60			87.06
BT7				500	<b>-5.58</b>		88.6			3.60	14.00			94.16
BT7				1000	<b>-0.27</b>		88.3			7.02	5.00			88.58
BT7				2000	<b>-9.98</b>		85.0			18.40	0.00			94.96
BT7				4000	<b>-60.05</b>		78.7			62.21	0.00			138.77
BT7				8000	<b>-229.08</b>		69.4			221.92	0.00			298.48

To be continued on next page...

## DECIBEL - Detailed results

**Calculation:** DIURNO **Noise calculation model:** ISO 9613-2 General

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### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
Sum					<b>13.75</b>									
Sum				63	<b>32.93</b>									
Sum				125	<b>22.12</b>									
Sum				250	<b>16.32</b>									
Sum				500	<b>6.38</b>									
Sum				1000	<b>8.11</b>									
Sum				2000	<b>-3.74</b>									
Sum				4000	<b>-55.44</b>									
Sum				8000	<b>-224.76</b>									

- Data undefined due to calculation with octave data

Wind speed: 5.0 m/s

### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT1		3 000	3 013	63	<b>4.36</b>	2.00	96.5	0.00	80.58	-	-	0.00	0.00	-
BT1				125	<b>-3.29</b>		74.6			0.30	-3.00			77.88
BT1				250	<b>-4.33</b>		83.3			1.21	5.85			87.63
BT1				500	<b>-3.26</b>		88.9			3.01	8.60			92.19
BT1				1000	<b>-8.75</b>		91.6			5.72	14.00			100.30
BT1				2000	<b>-5.62</b>		91.1			11.15	5.00			96.73
BT1				4000	<b>-22.18</b>		87.6			29.22	0.00			109.80
BT1				8000	<b>-98.25</b>		81.1			98.81	0.00			179.39
BT1					<b>-361.56</b>		71.5			352.47	0.00			433.05
BT2		2 572	2 601	63	<b>6.15</b>	2.00	96.5	0.00	79.30	-	-	0.00	0.00	-
BT2				125	<b>-1.97</b>		74.6			0.26	-3.00			76.56
BT2				250	<b>-2.89</b>		83.3			1.04	5.85			86.19
BT2				500	<b>-1.57</b>		88.9			2.60	8.60			90.50
BT2				1000	<b>-6.69</b>		91.6			4.94	14.00			98.24
BT2				2000	<b>-2.82</b>		91.1			9.62	5.00			93.93
BT2				4000	<b>-16.91</b>		87.6			25.23	0.00			104.53
BT2				8000	<b>-83.48</b>		81.1			85.31	0.00			164.61
BT2					<b>-312.12</b>		71.5			304.31	0.00			383.62
BT3		2 271	2 298	63	<b>7.66</b>	2.00	96.5	0.00	78.23	-	-	0.00	0.00	-
BT3				125	<b>-0.87</b>		74.6			0.23	-3.00			75.46
BT3				250	<b>-1.69</b>		83.3			0.92	5.85			85.00
BT3				500	<b>-0.20</b>		88.9			2.30	8.60			89.12
BT3				1000	<b>-5.04</b>		91.6			4.37	14.00			96.59
BT3				2000	<b>-0.63</b>		91.1			8.50	5.00			91.73
BT3				4000	<b>-12.90</b>		87.6			22.29	0.00			100.52
BT3				8000	<b>-72.46</b>		81.1			75.37	0.00			153.60
BT3					<b>-275.60</b>		71.5			268.86	0.00			347.09
BT4		2 091	2 119	63	<b>8.65</b>	2.00	96.5	0.00	77.52	-	-	0.00	0.00	-
BT4				125	<b>-0.14</b>		74.6			0.21	-3.00			74.74
BT4				250	<b>-0.92</b>		83.3			0.85	5.85			84.22
BT4				500	<b>0.69</b>		88.9			2.12	8.60			88.24
BT4				1000	<b>-4.00</b>		91.6			4.03	14.00			95.55
BT4				2000	<b>0.74</b>		91.1			7.84	5.00			90.36
BT4				4000	<b>-10.46</b>		87.6			20.56	0.00			98.08
BT4				8000	<b>-65.90</b>		81.1			69.51	0.00			147.03
BT4					<b>-253.98</b>		71.5			247.95	0.00			325.47
BT5		1 942	1 986	63	<b>9.44</b>	2.00	96.5	0.00	76.96	-	-	0.00	0.00	-
BT5				125	<b>0.43</b>		74.6			0.20	-3.00			74.16
BT5				250	<b>-0.30</b>		83.3			0.79	5.85			83.60
BT5				500	<b>1.39</b>		88.9			1.99	8.60			87.54
BT5				1000	<b>-3.18</b>		91.6			3.77	14.00			94.73
BT5				2000	<b>1.80</b>		91.1			7.35	5.00			89.31
BT5				4000	<b>-8.60</b>		87.6			19.26	0.00			96.22
BT5				8000	<b>-60.96</b>		81.1			65.14	0.00			142.10
BT5					<b>-237.81</b>		71.5			232.35	0.00			309.31
BT6		1 912	1 948	63	<b>9.67</b>	2.00	96.5	0.00	76.79	-	-	0.00	0.00	-
BT6				125	<b>0.60</b>		74.6			0.19	-3.00			73.99
BT6					<b>-0.12</b>		83.3			0.78	5.85			83.42

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## DECIBEL - Detailed results

**Calculation:** DIURNO **Noise calculation model:** ISO 9613-2 General

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### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT6				250	1.59		88.9			1.95	8.60			87.34
BT6				500	-2.94		91.6			3.70	14.00			94.49
BT6				1000	2.10		91.1			7.21	5.00			89.00
BT6				2000	-8.07		87.6			18.90	0.00			95.69
BT6				4000	-59.55		81.1			63.90	0.00			140.69
BT6				8000	-233.23		71.5			227.93	0.00			304.73
BT7		1 859	1 897		10.00	2.00	96.5	0.00	76.56	-	-	0.00	0.00	-
BT7				63	0.84		74.6			0.19	-3.00			73.75
BT7				125	0.14		83.3			0.76	5.85			83.17
BT7				250	1.87		88.9			1.90	8.60			87.06
BT7				500	-2.61		91.6			3.60	14.00			94.16
BT7				1000	2.53		91.1			7.02	5.00			88.58
BT7				2000	-7.34		87.6			18.40	0.00			94.96
BT7				4000	-57.64		81.1			62.21	0.00			138.77
BT7				8000	-226.99		71.5			221.92	0.00			298.48
Sum					16.82									
Sum				63	36.23									
Sum				125	25.35									
Sum				250	19.44									
Sum				500	9.34									
Sum				1000	10.91									
Sum				2000	-1.09									
Sum				4000	-53.03									
Sum				8000	-222.67									

- Data undefined due to calculation with octave data

Wind speed: 6.0 m/s

### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT1		3 000	3 013		7.95	2.00	100.0	0.00	80.58	-	-	0.00	0.00	-
BT1				63	0.35		78.2			0.30	-3.00			77.88
BT1				125	-0.71		86.9			1.21	5.85			87.63
BT1				250	0.34		92.5			3.01	8.60			92.19
BT1				500	-5.22		95.1			5.72	14.00			100.30
BT1				1000	-2.15		94.6			11.15	5.00			96.73
BT1				2000	-18.80		91.0			29.22	0.00			109.80
BT1				4000	-95.05		84.3			98.81	0.00			179.39
BT1				8000	-358.49		74.6			352.47	0.00			433.05
BT2		2 572	2 601		9.73	2.00	100.0	0.00	79.30	-	-	0.00	0.00	-
BT2				63	1.67		78.2			0.26	-3.00			76.56
BT2				125	0.73		86.9			1.04	5.85			86.19
BT2				250	2.03		92.5			2.60	8.60			90.50
BT2				500	-3.16		95.1			4.94	14.00			98.24
BT2				1000	0.65		94.6			9.62	5.00			93.93
BT2				2000	-13.53		91.0			25.23	0.00			104.53
BT2				4000	-80.28		84.3			85.31	0.00			164.61
BT2				8000	-309.06		74.6			304.31	0.00			383.62
BT3		2 271	2 298		11.24	2.00	100.0	0.00	78.23	-	-	0.00	0.00	-
BT3				63	2.77		78.2			0.23	-3.00			75.46
BT3				125	1.93		86.9			0.92	5.85			85.00
BT3				250	3.40		92.5			2.30	8.60			89.12
BT3				500	-1.51		95.1			4.37	14.00			96.59
BT3				1000	2.85		94.6			8.50	5.00			91.73
BT3				2000	-9.52		91.0			22.29	0.00			100.52
BT3				4000	-69.26		84.3			75.37	0.00			153.60
BT3				8000	-272.53		74.6			268.86	0.00			347.09
BT4		2 091	2 119		12.22	2.00	100.0	0.00	77.52	-	-	0.00	0.00	-
BT4				63	3.49		78.2			0.21	-3.00			74.74
BT4				125	2.70		86.9			0.85	5.85			84.22
BT4				250	4.29		92.5			2.12	8.60			88.24
BT4				500	-0.47		95.1			4.03	14.00			95.55
BT4				1000	4.21		94.6			7.84	5.00			90.36

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## DECIBEL - Detailed results

**Calculation:** DIURNO **Noise calculation model:** ISO 9613-2 General

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### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT4				2000	-7.08		91.0			20.56	0.00			98.08
BT4				4000	-62.70		84.3			69.51	0.00			147.03
BT4				8000	-250.91		74.6			247.95	0.00			325.47
BT5		1 942	1 986		13.00	2.00	100.0	0.00	76.96	-	-	0.00	0.00	-
BT5				63	4.07		78.2			0.20	-3.00			74.16
BT5				125	3.32		86.9			0.79	5.85			83.60
BT5				250	4.99		92.5			1.99	8.60			87.54
BT5				500	0.35		95.1			3.77	14.00			94.73
BT5				1000	5.27		94.6			7.35	5.00			89.31
BT5				2000	-5.22		91.0			19.26	0.00			96.22
BT5				4000	-57.76		84.3			65.14	0.00			142.10
BT5				8000	-234.75		74.6			232.35	0.00			309.31
BT6		1 912	1 948		13.24	2.00	100.0	0.00	76.79	-	-	0.00	0.00	-
BT6				63	4.24		78.2			0.19	-3.00			73.99
BT6				125	3.50		86.9			0.78	5.85			83.42
BT6				250	5.19		92.5			1.95	8.60			87.34
BT6				500	0.59		95.1			3.70	14.00			94.49
BT6				1000	5.58		94.6			7.21	5.00			89.00
BT6				2000	-4.69		91.0			18.90	0.00			95.69
BT6				4000	-56.35		84.3			63.90	0.00			140.69
BT6				8000	-230.17		74.6			227.93	0.00			304.73
BT7		1 859	1 897		13.56	2.00	100.0	0.00	76.56	-	-	0.00	0.00	-
BT7				63	4.48		78.2			0.19	-3.00			73.75
BT7				125	3.75		86.9			0.76	5.85			83.17
BT7				250	5.47		92.5			1.90	8.60			87.06
BT7				500	0.92		95.1			3.60	14.00			94.16
BT7				1000	6.00		94.6			7.02	5.00			88.58
BT7				2000	-3.96		91.0			18.40	0.00			94.96
BT7				4000	-54.44		84.3			62.21	0.00			138.77
BT7				8000	-223.92		74.6			221.92	0.00			298.48
Sum					20.39									
Sum				63	39.87									
Sum				125	28.97									
Sum				250	23.04									
Sum				500	12.87									
Sum				1000	14.38									
Sum				2000	2.28									
Sum				4000	-49.83									
Sum				8000	-219.61									

- Data undefined due to calculation with octave data

Wind speed: 7.0 m/s

### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT1		3 000	3 013		11.20	2.00	103.2	0.00	80.58	-	-	0.00	0.00	-
BT1				63	3.61		81.5			0.30	-3.00			77.88
BT1				125	2.57		90.2			1.21	5.85			87.63
BT1				250	3.59		95.8			3.01	8.60			92.19
BT1				500	-2.02		98.3			5.72	14.00			100.30
BT1				1000	1.05		97.8			11.15	5.00			96.73
BT1				2000	-15.72		94.1			29.22	0.00			109.80
BT1				4000	-92.01		87.4			98.81	0.00			179.39
BT1				8000	-355.54		77.5			352.47	0.00			433.05
BT2		2 572	2 601		12.98	2.00	103.2	0.00	79.30	-	-	0.00	0.00	-
BT2				63	4.93		81.5			0.26	-3.00			76.56
BT2				125	4.01		90.2			1.04	5.85			86.19
BT2				250	5.28		95.8			2.60	8.60			90.50
BT2				500	0.04		98.3			4.94	14.00			98.24
BT2				1000	3.85		97.8			9.62	5.00			93.93
BT2				2000	-10.45		94.1			25.23	0.00			104.53
BT2				4000	-77.23		87.4			85.31	0.00			164.61
BT2				8000	-306.10		77.5			304.31	0.00			383.62

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## DECIBEL - Detailed results

**Calculation:** DIURNO **Noise calculation model:** ISO 9613-2 General

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### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT3		2 271	2 298		<b>14.48</b>	2.00	103.2	0.00	78.23	-	-	0.00	0.00	-
BT3				63	<b>6.03</b>		81.5			0.23	-3.00			75.46
BT3				125	<b>5.21</b>		90.2			0.92	5.85			85.00
BT3				250	<b>6.66</b>		95.8			2.30	8.60			89.12
BT3				500	<b>1.69</b>		98.3			4.37	14.00			96.59
BT3				1000	<b>6.05</b>		97.8			8.50	5.00			91.73
BT3				2000	<b>-6.44</b>		94.1			22.29	0.00			100.52
BT3				4000	<b>-66.22</b>		87.4			75.37	0.00			153.60
BT3				8000	<b>-269.58</b>		77.5			268.86	0.00			347.09
BT4		2 091	2 119		<b>15.46</b>	2.00	103.2	0.00	77.52	-	-	0.00	0.00	-
BT4				63	<b>6.76</b>		81.5			0.21	-3.00			74.74
BT4				125	<b>5.98</b>		90.2			0.85	5.85			84.22
BT4				250	<b>7.54</b>		95.8			2.12	8.60			88.24
BT4				500	<b>2.73</b>		98.3			4.03	14.00			95.55
BT4				1000	<b>7.41</b>		97.8			7.84	5.00			90.36
BT4				2000	<b>-4.00</b>		94.1			20.56	0.00			98.08
BT4				4000	<b>-59.65</b>		87.4			69.51	0.00			147.03
BT4				8000	<b>-247.96</b>		77.5			247.95	0.00			325.47
BT5		1 942	1 986		<b>16.24</b>	2.00	103.2	0.00	76.96	-	-	0.00	0.00	-
BT5				63	<b>7.33</b>		81.5			0.20	-3.00			74.16
BT5				125	<b>6.60</b>		90.2			0.79	5.85			83.60
BT5				250	<b>8.24</b>		95.8			1.99	8.60			87.54
BT5				500	<b>3.55</b>		98.3			3.77	14.00			94.73
BT5				1000	<b>8.47</b>		97.8			7.35	5.00			89.31
BT5				2000	<b>-2.14</b>		94.1			19.26	0.00			96.22
BT5				4000	<b>-54.72</b>		87.4			65.14	0.00			142.10
BT5				8000	<b>-231.79</b>		77.5			232.35	0.00			309.31
BT6		1 912	1 948		<b>16.47</b>	2.00	103.2	0.00	76.79	-	-	0.00	0.00	-
BT6				63	<b>7.50</b>		81.5			0.19	-3.00			73.99
BT6				125	<b>6.78</b>		90.2			0.78	5.85			83.42
BT6				250	<b>8.45</b>		95.8			1.95	8.60			87.34
BT6				500	<b>3.79</b>		98.3			3.70	14.00			94.49
BT6				1000	<b>8.78</b>		97.8			7.21	5.00			89.00
BT6				2000	<b>-1.61</b>		94.1			18.90	0.00			95.69
BT6				4000	<b>-53.31</b>		87.4			63.90	0.00			140.69
BT6				8000	<b>-227.21</b>		77.5			227.93	0.00			304.73
BT7		1 859	1 897		<b>16.80</b>	2.00	103.2	0.00	76.56	-	-	0.00	0.00	-
BT7				63	<b>7.74</b>		81.5			0.19	-3.00			73.75
BT7				125	<b>7.04</b>		90.2			0.76	5.85			83.17
BT7				250	<b>8.73</b>		95.8			1.90	8.60			87.06
BT7				500	<b>4.12</b>		98.3			3.60	14.00			94.16
BT7				1000	<b>9.20</b>		97.8			7.02	5.00			88.58
BT7				2000	<b>-0.88</b>		94.1			18.40	0.00			94.96
BT7				4000	<b>-51.39</b>		87.4			62.21	0.00			138.77
BT7				8000	<b>-220.97</b>		77.5			221.92	0.00			298.48
Sum					<b>23.63</b>									
Sum				63	<b>43.13</b>									
Sum				125	<b>32.25</b>									
Sum				250	<b>26.29</b>									
Sum				500	<b>16.07</b>									
Sum				1000	<b>17.58</b>									
Sum				2000	<b>5.36</b>									
Sum				4000	<b>-46.79</b>									
Sum				8000	<b>-216.66</b>									

- Data undefined due to calculation with octave data

Wind speed: 8.0 m/s

### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT1		3 000	3 013		<b>14.06</b>	2.00	106.0	0.00	80.58	-	-	0.00	0.00	-
BT1				63	<b>6.51</b>		84.4			0.30	-3.00			77.88
BT1				125	<b>5.47</b>		93.1			1.21	5.85			87.63

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## DECIBEL - Detailed results

**Calculation:** DIURNO **Noise calculation model:** ISO 9613-2 General

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### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT1				250	6.46		98.7			3.01	8.60			92.19
BT1				500	0.84		101.1			5.72	14.00			100.30
BT1				1000	3.79		100.5			11.15	5.00			96.73
BT1				2000	-13.02		96.8			29.22	0.00			109.80
BT1				4000	-89.41		90.0			98.81	0.00			179.39
BT1				8000	-353.05		80.0			352.47	0.00			433.05
BT2		2 572	2 601		15.84	2.00	106.0	0.00	79.30	-	-	0.00	0.00	-
BT2				63	7.83		84.4			0.26	-3.00			76.56
BT2				125	6.91		93.1			1.04	5.85			86.19
BT2				250	8.15		98.7			2.60	8.60			90.50
BT2				500	2.90		101.1			4.94	14.00			98.24
BT2				1000	6.59		100.5			9.62	5.00			93.93
BT2				2000	-7.75		96.8			25.23	0.00			104.53
BT2				4000	-74.63		90.0			85.31	0.00			164.61
BT2				8000	-303.61		80.0			304.31	0.00			383.62
BT3		2 271	2 298		17.33	2.00	106.0	0.00	78.23	-	-	0.00	0.00	-
BT3				63	8.93		84.4			0.23	-3.00			75.46
BT3				125	8.11		93.1			0.92	5.85			85.00
BT3				250	9.53		98.7			2.30	8.60			89.12
BT3				500	4.55		101.1			4.37	14.00			96.59
BT3				1000	8.78		100.5			8.50	5.00			91.73
BT3				2000	-3.74		96.8			22.29	0.00			100.52
BT3				4000	-63.62		90.0			75.37	0.00			153.60
BT3				8000	-267.09		80.0			268.86	0.00			347.09
BT4		2 091	2 119		18.30	2.00	106.0	0.00	77.52	-	-	0.00	0.00	-
BT4				63	9.66		84.4			0.21	-3.00			74.74
BT4				125	8.88		93.1			0.85	5.85			84.22
BT4				250	10.41		98.7			2.12	8.60			88.24
BT4				500	5.60		101.1			4.03	14.00			95.55
BT4				1000	10.15		100.5			7.84	5.00			90.36
BT4				2000	-1.30		96.8			20.56	0.00			98.08
BT4				4000	-57.05		90.0			69.51	0.00			147.03
BT4				8000	-245.47		80.0			247.95	0.00			325.47
BT5		1 942	1 986		19.08	2.00	106.0	0.00	76.96	-	-	0.00	0.00	-
BT5				63	10.23		84.4			0.20	-3.00			74.16
BT5				125	9.50		93.1			0.79	5.85			83.60
BT5				250	11.11		98.7			1.99	8.60			87.54
BT5				500	6.41		101.1			3.77	14.00			94.73
BT5				1000	11.21		100.5			7.35	5.00			89.31
BT5				2000	0.56		96.8			19.26	0.00			96.22
BT5				4000	-52.12		90.0			65.14	0.00			142.10
BT5				8000	-229.30		80.0			232.35	0.00			309.31
BT6		1 912	1 948		19.31	2.00	106.0	0.00	76.79	-	-	0.00	0.00	-
BT6				63	10.40		84.4			0.19	-3.00			73.99
BT6				125	9.68		93.1			0.78	5.85			83.42
BT6				250	11.31		98.7			1.95	8.60			87.34
BT6				500	6.65		101.1			3.70	14.00			94.49
BT6				1000	11.51		100.5			7.21	5.00			89.00
BT6				2000	1.09		96.8			18.90	0.00			95.69
BT6				4000	-50.71		90.0			63.90	0.00			140.69
BT6				8000	-224.72		80.0			227.93	0.00			304.73
BT7		1 859	1 897		19.64	2.00	106.0	0.00	76.56	-	-	0.00	0.00	-
BT7				63	10.64		84.4			0.19	-3.00			73.75
BT7				125	9.94		93.1			0.76	5.85			83.17
BT7				250	11.60		98.7			1.90	8.60			87.06
BT7				500	6.98		101.1			3.60	14.00			94.16
BT7				1000	11.94		100.5			7.02	5.00			88.58
BT7				2000	1.82		96.8			18.40	0.00			94.96
BT7				4000	-48.79		90.0			62.21	0.00			138.77
BT7				8000	-218.48		80.0			221.92	0.00			298.48
Sum					26.47									
Sum				63	46.03									
Sum				125	35.15									

To be continued on next page...

## DECIBEL - Detailed results

**Calculation:** DIURNO **Noise calculation model:** ISO 9613-2 General

...continued from previous page

### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
Sum				250	29.16									
Sum				500	18.94									
Sum				1000	20.32									
Sum				2000	8.06									
Sum				4000	-44.19									
Sum				8000	-214.17									

- Data undefined due to calculation with octave data

Wind speed: 9.0 m/s

### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT1		3 000	3 013	63	15.01	2.00	106.9	0.00	80.58	-	-	0.00	0.00	-
BT1				125	7.51		85.4			0.30	-3.00			77.88
BT1				250	6.42		94.1			1.21	5.85			87.63
BT1				500	7.39		99.6			3.01	8.60			92.19
BT1				1000	1.74		102.0			5.72	14.00			100.30
BT1				2000	4.69		101.4			11.15	5.00			96.73
BT1				4000	-12.22		97.6			29.22	0.00			109.80
BT1				8000	-88.63		90.8			98.81	0.00			179.39
BT1					-352.37		80.7			352.47	0.00			433.05
BT2		2 572	2 601	63	16.78	2.00	106.9	0.00	79.30	-	-	0.00	0.00	-
BT2				125	8.83		85.4			0.26	-3.00			76.56
BT2				250	7.86		94.1			1.04	5.85			86.19
BT2				500	9.08		99.6			2.60	8.60			90.50
BT2				1000	3.80		102.0			4.94	14.00			98.24
BT2				2000	7.49		101.4			9.62	5.00			93.93
BT2				4000	-6.95		97.6			25.23	0.00			104.53
BT2				8000	-73.85		90.8			85.31	0.00			164.61
BT2					-302.94		80.7			304.31	0.00			383.62
BT3		2 271	2 298	63	18.27	2.00	106.9	0.00	78.23	-	-	0.00	0.00	-
BT3				125	9.93		85.4			0.23	-3.00			75.46
BT3				250	9.06		94.1			0.92	5.85			85.00
BT3				500	10.46		99.6			2.30	8.60			89.12
BT3				1000	5.45		102.0			4.37	14.00			96.59
BT3				2000	9.68		101.4			8.50	5.00			91.73
BT3				4000	-2.94		97.6			22.29	0.00			100.52
BT3				8000	-62.84		90.8			75.37	0.00			153.60
BT3					-266.41		80.7			268.86	0.00			347.09
BT4		2 091	2 119	63	19.24	2.00	106.9	0.00	77.52	-	-	0.00	0.00	-
BT4				125	10.66		85.4			0.21	-3.00			74.74
BT4				250	9.83		94.1			0.85	5.85			84.22
BT4				500	11.34		99.6			2.12	8.60			88.24
BT4				1000	6.50		102.0			4.03	14.00			95.55
BT4				2000	11.05		101.4			7.84	5.00			90.36
BT4				4000	-0.50		97.6			20.56	0.00			98.08
BT4				8000	-56.27		90.8			69.51	0.00			147.03
BT4					-244.79		80.7			247.95	0.00			325.47
BT5		1 942	1 986	63	20.02	2.00	106.9	0.00	76.96	-	-	0.00	0.00	-
BT5				125	11.23		85.4			0.20	-3.00			74.16
BT5				250	10.45		94.1			0.79	5.85			83.60
BT5				500	12.04		99.6			1.99	8.60			87.54
BT5				1000	7.31		102.0			3.77	14.00			94.73
BT5				2000	12.11		101.4			7.35	5.00			89.31
BT5				4000	1.36		97.6			19.26	0.00			96.22
BT5				8000	-51.33		90.8			65.14	0.00			142.10
BT5					-228.63		80.7			232.35	0.00			309.31
BT6		1 912	1 948	63	20.25	2.00	106.9	0.00	76.79	-	-	0.00	0.00	-
BT6				125	11.40		85.4			0.19	-3.00			73.99
BT6				250	10.63		94.1			0.78	5.85			83.42
BT6				500	12.25		99.6			1.95	8.60			87.34
BT6				1000	7.55		102.0			3.70	14.00			94.49
BT6					12.41		101.4			7.21	5.00			89.00

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Project:

**230515 Modello Borgo Taro per acustica**

Licensed user:

**MORI MANTOVANI ASSOCIATI SRL**

VIA STRASBURGO 18A

IT-43123 PARMA

+390521239944

GIULIO BARTOLI / giulio@morimantovani.it

Calculated:

02/06/2023 12:50/3.6.366

## DECIBEL - Detailed results

**Calculation: DIURNO Noise calculation model: ISO 9613-2 General**

...continued from previous page

**WTG**

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT6				2000	<b>1.89</b>		97.6			18.90	0.00			95.69
BT6				4000	<b>-49.93</b>		90.8			63.90	0.00			140.69
BT6				8000	<b>-224.05</b>		80.7			227.93	0.00			304.73
BT7		1 859	1 897		<b>20.57</b>	2.00	106.9	0.00	76.56	-	-	0.00	0.00	-
BT7				63	<b>11.64</b>		85.4			0.19	-3.00			73.75
BT7				125	<b>10.88</b>		94.1			0.76	5.85			83.17
BT7				250	<b>12.53</b>		99.6			1.90	8.60			87.06
BT7				500	<b>7.88</b>		102.0			3.60	14.00			94.16
BT7				1000	<b>12.84</b>		101.4			7.02	5.00			88.58
BT7				2000	<b>2.62</b>		97.6			18.40	0.00			94.96
BT7				4000	<b>-48.01</b>		90.8			62.21	0.00			138.77
BT7				8000	<b>-217.81</b>		80.7			221.92	0.00			298.48
Sum					<b>27.41</b>									
Sum				63	<b>47.03</b>									
Sum				125	<b>36.10</b>									
Sum				250	<b>30.09</b>									
Sum				500	<b>19.84</b>									
Sum				1000	<b>21.22</b>									
Sum				2000	<b>8.86</b>									
Sum				4000	<b>-43.40</b>									
Sum				8000	<b>-213.49</b>									

- Data undefined due to calculation with octave data

Wind speed: 10.0 m/s

**WTG**

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT1		3 000	3 013		<b>14.97</b>	2.00	106.9	0.00	80.58	-	-	0.00	0.00	-
BT1				63	<b>7.41</b>		85.3			0.30	-3.00			77.88
BT1				125	<b>6.39</b>		94.0			1.21	5.85			87.63
BT1				250	<b>7.36</b>		99.6			3.01	8.60			92.19
BT1				500	<b>1.74</b>		102.0			5.72	14.00			100.30
BT1				1000	<b>4.69</b>		101.4			11.15	5.00			96.73
BT1				2000	<b>-12.12</b>		97.7			29.22	0.00			109.80
BT1				4000	<b>-88.53</b>		90.9			98.81	0.00			179.39
BT1				8000	<b>-352.24</b>		80.8			352.47	0.00			433.05
BT2		2 572	2 601		<b>16.74</b>	2.00	106.9	0.00	79.30	-	-	0.00	0.00	-
BT2				63	<b>8.73</b>		85.3			0.26	-3.00			76.56
BT2				125	<b>7.83</b>		94.0			1.04	5.85			86.19
BT2				250	<b>9.05</b>		99.6			2.60	8.60			90.50
BT2				500	<b>3.80</b>		102.0			4.94	14.00			98.24
BT2				1000	<b>7.49</b>		101.4			9.62	5.00			93.93
BT2				2000	<b>-6.85</b>		97.7			25.23	0.00			104.53
BT2				4000	<b>-73.75</b>		90.9			85.31	0.00			164.61
BT2				8000	<b>-302.80</b>		80.8			304.31	0.00			383.62
BT3		2 271	2 298		<b>18.23</b>	2.00	106.9	0.00	78.23	-	-	0.00	0.00	-
BT3				63	<b>9.83</b>		85.3			0.23	-3.00			75.46
BT3				125	<b>9.03</b>		94.0			0.92	5.85			85.00
BT3				250	<b>10.43</b>		99.6			2.30	8.60			89.12
BT3				500	<b>5.45</b>		102.0			4.37	14.00			96.59
BT3				1000	<b>9.68</b>		101.4			8.50	5.00			91.73
BT3				2000	<b>-2.84</b>		97.7			22.29	0.00			100.52
BT3				4000	<b>-62.74</b>		90.9			75.37	0.00			153.60
BT3				8000	<b>-266.28</b>		80.8			268.86	0.00			347.09
BT4		2 091	2 119		<b>19.21</b>	2.00	106.9	0.00	77.52	-	-	0.00	0.00	-
BT4				63	<b>10.56</b>		85.3			0.21	-3.00			74.74
BT4				125	<b>9.80</b>		94.0			0.85	5.85			84.22
BT4				250	<b>11.31</b>		99.6			2.12	8.60			88.24
BT4				500	<b>6.50</b>		102.0			4.03	14.00			95.55
BT4				1000	<b>11.05</b>		101.4			7.84	5.00			90.36
BT4				2000	<b>-0.40</b>		97.7			20.56	0.00			98.08
BT4				4000	<b>-56.17</b>		90.9			69.51	0.00			147.03
BT4				8000	<b>-244.66</b>		80.8			247.95	0.00			325.47

To be continued on next page...



## DECIBEL - Detailed results

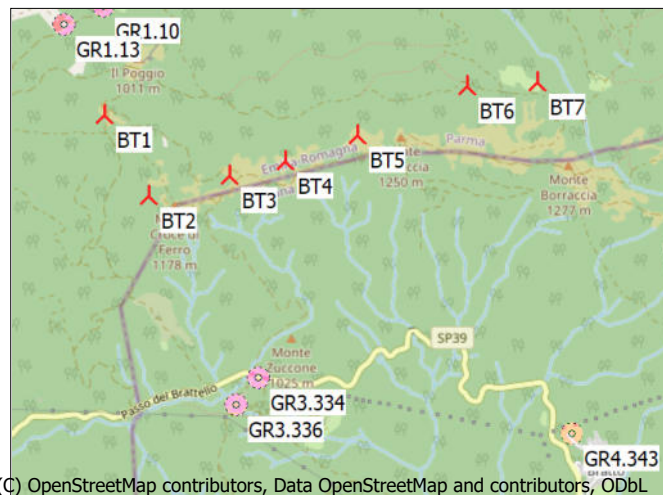
**Calculation:** DIURNO **Noise calculation model:** ISO 9613-2 General

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### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT5		1 942	1 986		<b>19.99</b>	2.00	106.9	0.00	76.96	-	-	0.00	0.00	-
BT5				63	<b>11.13</b>		85.3			0.20	-3.00			74.16
BT5				125	<b>10.42</b>		94.0			0.79	5.85			83.60
BT5				250	<b>12.01</b>		99.6			1.99	8.60			87.54
BT5				500	<b>7.31</b>		102.0			3.77	14.00			94.73
BT5				1000	<b>12.11</b>		101.4			7.35	5.00			89.31
BT5				2000	<b>1.46</b>		97.7			19.26	0.00			96.22
BT5				4000	<b>-51.23</b>		90.9			65.14	0.00			142.10
BT5				8000	<b>-228.49</b>		80.8			232.35	0.00			309.31
BT6		1 912	1 948		<b>20.22</b>	2.00	106.9	0.00	76.79	-	-	0.00	0.00	-
BT6				63	<b>11.30</b>		85.3			0.19	-3.00			73.99
BT6				125	<b>10.60</b>		94.0			0.78	5.85			83.42
BT6				250	<b>12.21</b>		99.6			1.95	8.60			87.34
BT6				500	<b>7.55</b>		102.0			3.70	14.00			94.49
BT6				1000	<b>12.41</b>		101.4			7.21	5.00			89.00
BT6				2000	<b>1.99</b>		97.7			18.90	0.00			95.69
BT6				4000	<b>-49.83</b>		90.9			63.90	0.00			140.69
BT6				8000	<b>-223.91</b>		80.8			227.93	0.00			304.73
BT7		1 859	1 897		<b>20.54</b>	2.00	106.9	0.00	76.56	-	-	0.00	0.00	-
BT7				63	<b>11.54</b>		85.3			0.19	-3.00			73.75
BT7				125	<b>10.85</b>		94.0			0.76	5.85			83.17
BT7				250	<b>12.50</b>		99.6			1.90	8.60			87.06
BT7				500	<b>7.88</b>		102.0			3.60	14.00			94.16
BT7				1000	<b>12.84</b>		101.4			7.02	5.00			88.58
BT7				2000	<b>2.72</b>		97.7			18.40	0.00			94.96
BT7				4000	<b>-47.91</b>		90.9			62.21	0.00			138.77
BT7				8000	<b>-217.67</b>		80.8			221.92	0.00			298.48
Sum					<b>27.38</b>									
Sum				63	<b>46.93</b>									
Sum				125	<b>36.07</b>									
Sum				250	<b>30.06</b>									
Sum				500	<b>19.84</b>									
Sum				1000	<b>21.22</b>									
Sum				2000	<b>8.96</b>									
Sum				4000	<b>-43.30</b>									
Sum				8000	<b>-213.36</b>									

- Data undefined due to calculation with octave data



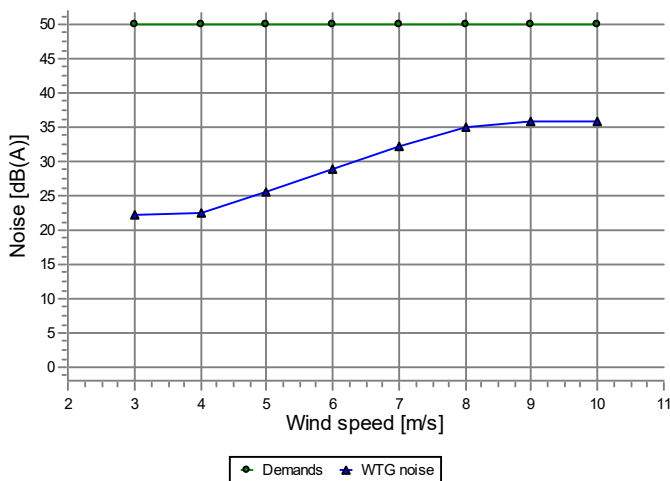
▲ New WTG

Scale 1:40 000  
■ Noise sensitive area

## DECIBEL - Detailed results, graphic

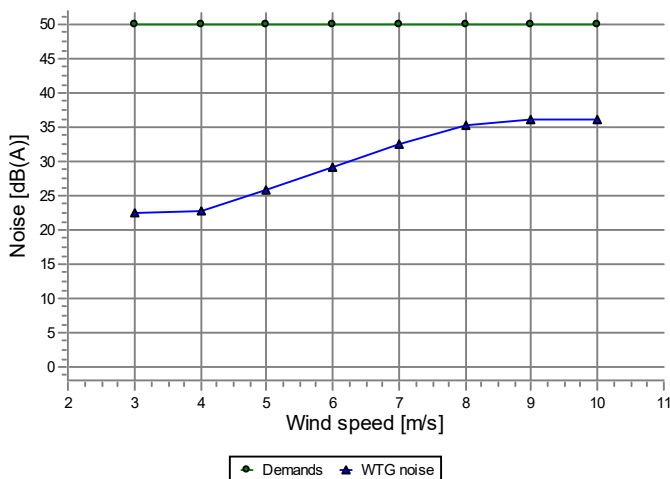
Calculation: DIURNO Noise calculation model: ISO 9613-2 General

### GR1.10 Case Vighini



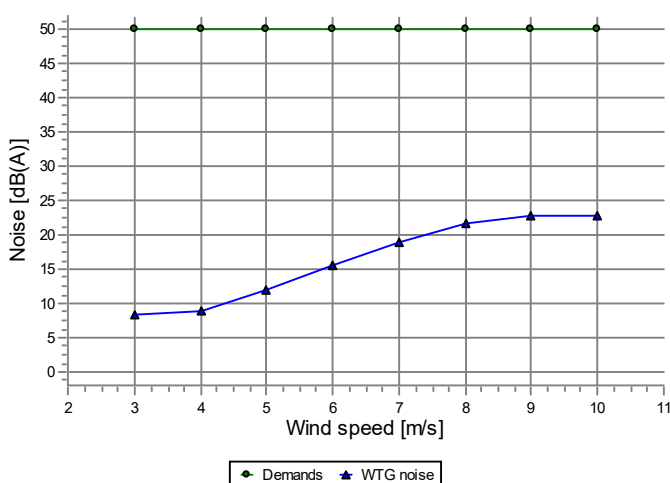
Sound level				
Wind speed	Demands	WTG noise	Uncertainty margin	WTG+Uncertainty margin
[m/s]	[dB(A)]	[dB(A)]	[dB]	[dB(A)]
3.0	50.0	20.1	2.0	22.1
4.0	50.0	20.6	2.0	22.6
5.0	50.0	23.5	2.0	25.5
6.0	50.0	27.0	2.0	29.0
7.0	50.0	30.2	2.0	32.2
8.0	50.0	33.0	2.0	35.0
9.0	50.0	34.0	2.0	36.0
10.0	50.0	33.9	2.0	35.9

### GR1.13 Case Vighini



Sound level				
Wind speed	Demands	WTG noise	Uncertainty margin	WTG+Uncertainty margin
[m/s]	[dB(A)]	[dB(A)]	[dB]	[dB(A)]
3.0	50.0	20.4	2.0	22.4
4.0	50.0	20.9	2.0	22.9
5.0	50.0	23.8	2.0	25.8
6.0	50.0	27.3	2.0	29.3
7.0	50.0	30.5	2.0	32.5
8.0	50.0	33.3	2.0	35.3
9.0	50.0	34.2	2.0	36.2
10.0	50.0	34.2	2.0	36.2

### GR2.101 Valdena

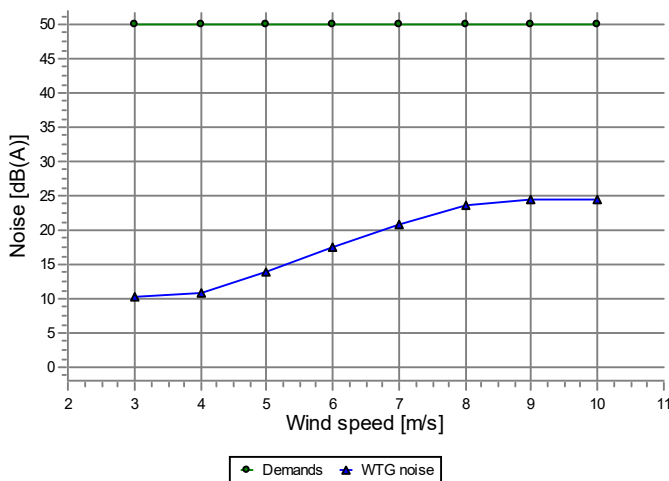


Sound level				
Wind speed	Demands	WTG noise	Uncertainty margin	WTG+Uncertainty margin
[m/s]	[dB(A)]	[dB(A)]	[dB]	[dB(A)]
3.0	50.0	6.3	2.0	8.3
4.0	50.0	6.9	2.0	8.9
5.0	50.0	10.1	2.0	12.1
6.0	50.0	13.6	2.0	15.6
7.0	50.0	16.9	2.0	18.9
8.0	50.0	19.8	2.0	21.8
9.0	50.0	20.7	2.0	22.7
10.0	50.0	20.7	2.0	22.7

## DECIBEL - Detailed results, graphic

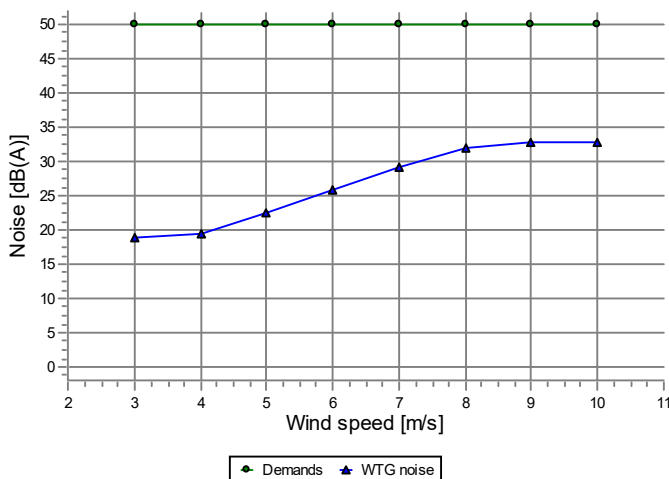
Calculation: DIURNO Noise calculation model: ISO 9613-2 General

### GR2.128 Valdena



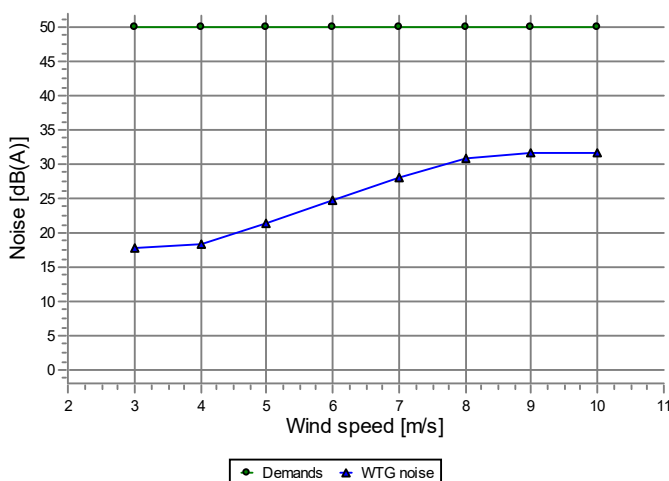
Sound level				
Wind speed	Demands	WTG noise	Uncertainty margin	WTG+Uncertainty margin
[m/s]	[dB(A)]	[dB(A)]	[dB]	[dB(A)]
3.0	50.0	8.2	2.0	10.2
4.0	50.0	8.8	2.0	10.8
5.0	50.0	11.9	2.0	13.9
6.0	50.0	15.5	2.0	17.5
7.0	50.0	18.7	2.0	20.7
8.0	50.0	21.6	2.0	23.6
9.0	50.0	22.5	2.0	24.5
10.0	50.0	22.5	2.0	24.5

### GR3.334 Passo del Brattello



Sound level				
Wind speed	Demands	WTG noise	Uncertainty margin	WTG+Uncertainty margin
[m/s]	[dB(A)]	[dB(A)]	[dB]	[dB(A)]
3.0	50.0	16.9	2.0	18.9
4.0	50.0	17.4	2.0	19.4
5.0	50.0	20.4	2.0	22.4
6.0	50.0	24.0	2.0	26.0
7.0	50.0	27.2	2.0	29.2
8.0	50.0	30.0	2.0	32.0
9.0	50.0	30.9	2.0	32.9
10.0	50.0	30.9	2.0	32.9

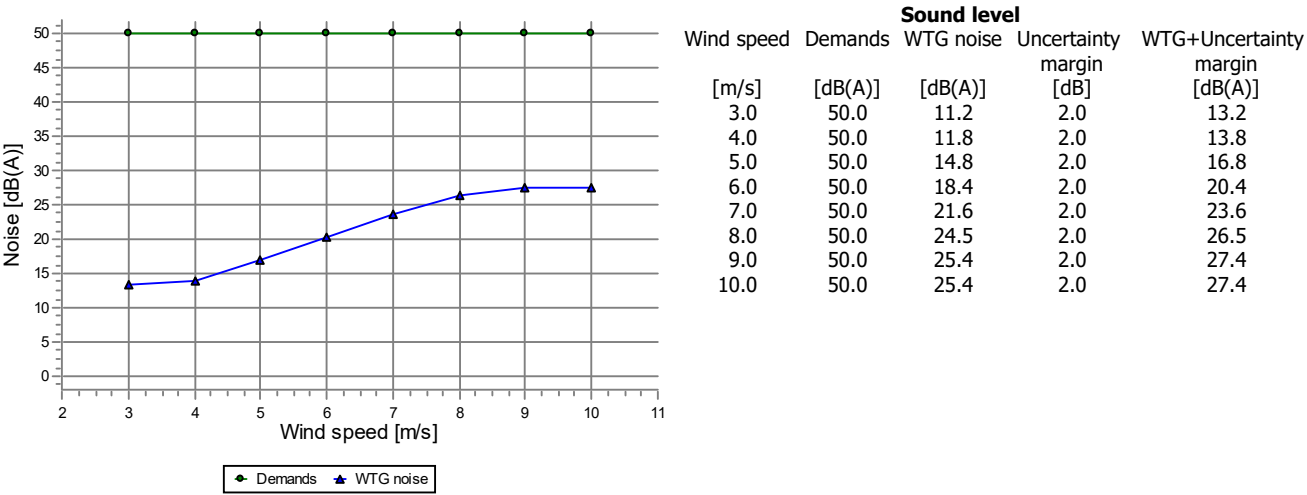
### GR3.336 Passo del Brattello



Sound level				
Wind speed	Demands	WTG noise	Uncertainty margin	WTG+Uncertainty margin
[m/s]	[dB(A)]	[dB(A)]	[dB]	[dB(A)]
3.0	50.0	15.8	2.0	17.8
4.0	50.0	16.3	2.0	18.3
5.0	50.0	19.3	2.0	21.3
6.0	50.0	22.8	2.0	24.8
7.0	50.0	26.1	2.0	28.1
8.0	50.0	28.9	2.0	30.9
9.0	50.0	29.8	2.0	31.8
10.0	50.0	29.8	2.0	31.8

**DECIBEL - Detailed results, graphic**

**Calculation:** DIURNO    **Noise calculation model:** ISO 9613-2 General  
**GR4.343 Bratto**



Project:

**230515 Modello Borgo Taro per acustica**

Licensed user:

**MORI MANTOVANI ASSOCIATI SRL**

VIA STRASBURGO 18A

IT-43123 PARMA

+390521239944

GIULIO BARTOLI / giulio@morimantovani.it

Calculated:

02/06/2023 12:50/3.6.366

## DECIBEL - Assumptions for noise calculation

**Calculation:** DIURNO

**Noise calculation model:**

ISO 9613-2 General

**Wind speed (in hubheight):**

3.0 m/s - 10.0 m/s, step 1.0 m/s

**Ground attenuation:**

General, Ground factor: 1.0

**Meteorological coefficient, C0:**

0.0 dB

**Type of demand in calculation:**

1: WTG noise is compared to demand (DK, DE, SE, NL etc.)

**Noise values in calculation:**

All noise values are mean values (Lwa) (Normal)

**Pure tones:**

Fixed penalty added to source noise of WTGs with pure tones

WTG catalogue

**Height above ground level, when no value in NSA object:**

0.0 m; Don't allow override of model height with height from NSA object

**Uncertainty margin:**

2.0 dB; Uncertainty margin in NSA has priority

**Deviation from "official" noise demands. Negative is more restrictive, positive is less restrictive.:**

0.0 dB(A)

**Noise reflections according to ISO 9613-2 included**

### Octave data required

Frequency dependent air absorption

63	125	250	500	1 000	2 000	4 000	8 000
[dB/km]	[dB/km]	[dB/km]	[dB/km]	[dB/km]	[dB/km]	[dB/km]	[dB/km]
0.10	0.40	1.00	1.90	3.70	9.70	32.80	117.00

All coordinates are in

Geo [deg]-WGS84

**WTG:** VESTAS V136-4.2 4200 136.0 !O!

**Noise:** Level V136-4.2MW PO1-0S

Source      Source/Date    Creator    Edited

Manufacturer   16/05/2023    USER    16/05/2023 14:45

Status	Wind speed [m/s]	LwA,ref [dB(A)]	Pure tones	Octave data							
				63	125	250	500	1000	2000	4000	8000
				[dB]	[dB]	[dB]	[dB]	[dB]	[dB]	[dB]	[dB]
From Windcat	3.0	93.2	No	70.5	79.4	85.2	88.1	88.0	84.8	78.7	69.5
From Windcat	4.0	93.6	No	71.3	80.1	85.8	88.6	88.3	85.0	78.7	69.4
From Windcat	5.0	96.5	No	74.6	83.3	88.9	91.6	91.1	87.6	81.1	71.5
From Windcat	6.0	100.0	No	78.2	86.9	92.5	95.1	94.6	91.0	84.3	74.6
From Windcat	7.0	103.2	No	81.5	90.2	95.8	98.3	97.8	94.1	87.4	77.5
From Windcat	8.0	106.0	No	84.4	93.1	98.7	101.1	100.5	96.8	90.0	80.0
From Windcat	9.0	106.9	No	85.4	94.1	99.6	102.0	101.4	97.6	90.8	80.7
From Windcat	10.0	106.9	No	85.3	94.0	99.6	102.0	101.4	97.7	90.9	80.8

### Noise sensitive area: GR1.10 Case Vighini

**Predefined calculation standard:**

**Immission height(a.g.l.):** Use standard value from calculation model

**Uncertainty margin:** Use default value from calculation model

**Noise demand:** 50.0 dB(A)

**Distance demand:** 20\*RD

### Noise sensitive area: GR1.13 Case Vighini

**Predefined calculation standard:**

**Immission height(a.g.l.):** Use standard value from calculation model

**Uncertainty margin:** Use default value from calculation model

**Noise demand:** 50.0 dB(A)

**Distance demand:** 20\*RD

Project:

**230515 Modello Borgo Taro per acustica**

Licensed user:

**MORI MANTOVANI ASSOCIATI SRL**

VIA STRASBURGO 18A

IT-43123 PARMA

+390521239944

GIULIO BARTOLI / giulio@morimantovani.it

Calculated:

02/06/2023 12:50/3.6.366

## DECIBEL - Assumptions for noise calculation

**Calculation:** DIURNO

**Noise sensitive area:** GR2.101 Valdena

**Predefined calculation standard:**

**Immission height(a.g.l.):** Use standard value from calculation model

**Uncertainty margin:** Use default value from calculation model

**Noise demand:** 50.0 dB(A)

**Distance demand:** 20\*RD

**Noise sensitive area:** GR2.128 Valdena

**Predefined calculation standard:**

**Immission height(a.g.l.):** Use standard value from calculation model

**Uncertainty margin:** Use default value from calculation model

**Noise demand:** 50.0 dB(A)

**Distance demand:** 20\*RD

**Noise sensitive area:** GR3.334 Passo del Brattello

**Predefined calculation standard:**

**Immission height(a.g.l.):** Use standard value from calculation model

**Uncertainty margin:** Use default value from calculation model

**Noise demand:** 50.0 dB(A)

**Distance demand:** 20\*RD

**Noise sensitive area:** GR3.336 Passo del Brattello

**Predefined calculation standard:**

**Immission height(a.g.l.):** Use standard value from calculation model

**Uncertainty margin:** Use default value from calculation model

**Noise demand:** 50.0 dB(A)

**Distance demand:** 20\*RD

**Noise sensitive area:** GR4.343 Bratto

**Predefined calculation standard:**

**Immission height(a.g.l.):** Use standard value from calculation model

**Uncertainty margin:** Use default value from calculation model

**Noise demand:** 50.0 dB(A)

**Distance demand:** 20\*RD

**No obstacles used for reflection**



Project:

**230515 Modello Borgo Taro per acustica**

Licensed user:

**MORI MANTOVANI ASSOCIATI SRL**

VIA STRASBURGO 18A

IT-43123 PARMA

+390521239944

GIULIO BARTOLI / giulio@morimantovani.it

Calculated:

02/06/2023 12:50/3.6.366

## **DECIBEL - Reflections details**

**Calculation:** DIURNO

**No obstacles used for reflection**

Project:

**230515 Modello Borgo Taro per acustica**

Licensed user:

**MORI MANTOVANI ASSOCIATI SRL**

VIA STRASBURGO 18A

IT-43123 PARMA

+390521239944

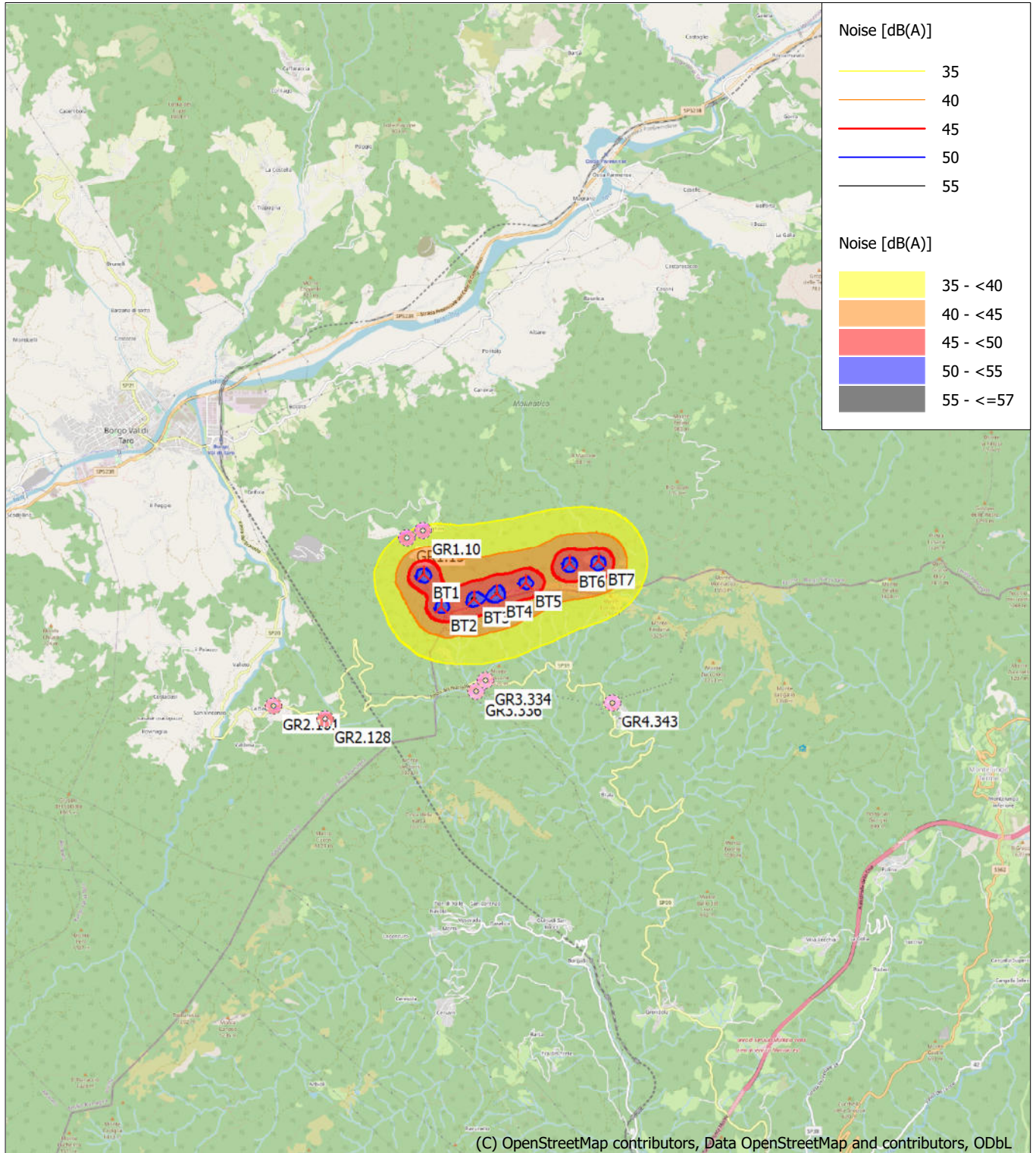
GIULIO BARTOLI / giulio@morimantovani.it

Calculated:

02/06/2023 12:50/3.6.366

## DECIBEL - Map 10.0 m/s

Calculation: DIURNO



0 1 2 3 4 km

New WTG

Map: EMD OpenStreetMap, Print scale 1:75 000, Map center Geo WGS84 East: 9.829244° E North: 44.469417° N

Noise sensitive area

Noise calculation model: ISO 9613-2 General. Wind speed: 10.0 m/s (2.0 dB uncertainty added)

Height above sea level from active line object

Project:

230515 Modello Borgo Taro per acustica

Licensed user:

MORI MANTOVANI ASSOCIATI SRL

VIA STRASBURGO 18A

IT-43123 PARMA

+390521239944

GIULIO BARTOLI / giulio@morimantovani.it

Calculated:

02/06/2023 13:09/3.6.366

## DECIBEL - Main Result

**Calculation:** NOTTURNO

**Noise calculation model:**

ISO 9613-2 General

**Wind speed (in hubheight):**

3.0 m/s - 10.0 m/s, step 1.0 m/s

**Ground attenuation:**

General, Ground factor: 1.0

**Meteorological coefficient, C0:**

0.0 dB

**Type of demand in calculation:**

1: WTG noise is compared to demand (DK, DE, SE, NL etc.)

**Noise values in calculation:**

All noise values are mean values (Lwa) (Normal)

**Pure tones:**

Fixed penalty added to source noise of WTGs with pure tones

WTG catalogue

**Height above ground level, when no value in NSA object:**

0.0 m; Don't allow override of model height with height from NSA object

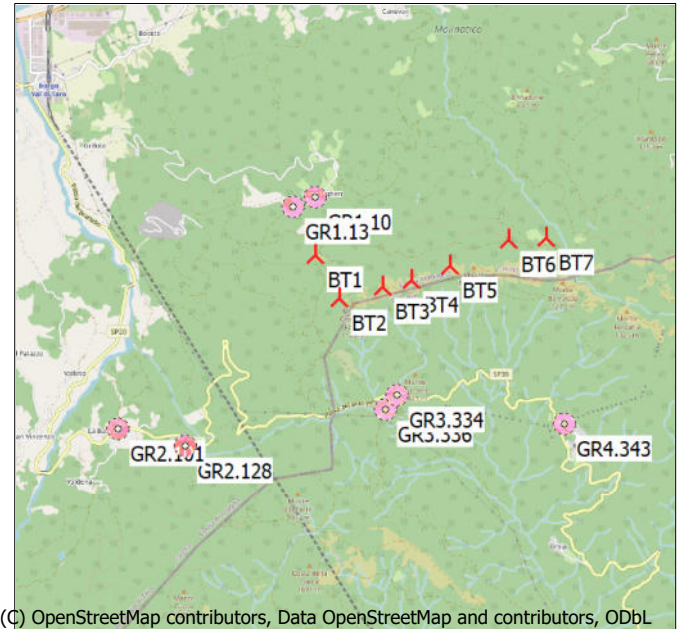
**Uncertainty margin:**

2.0 dB; Uncertainty margin in NSA has priority

**Deviation from "official" noise demands. Negative is more restrictive, positive is less restrictive.:**

0.0 dB(A)

**Noise reflections according to ISO 9613-2 included**



(C) OpenStreetMap contributors, Data OpenStreetMap and contributors, ODbL

Scale 1:75 000

▲ New WTG

■ Noise sensitive area

All coordinates are in

Geo [deg]-WGS84

### WTGs

	Longitude	Latitude	Z	Row data/Description	WTG type			Noise data				First wind speed [m/s]	LwaRef [dB(A)]	Last wind speed [m/s]	LwaRef [dB(A)]	
					Valid	Manufact.	Type-generator	Power, rated	Rotor diameter	Hub height	Creator					Name
			[m]					[kW]	[m]	[m]						
BT1	9.814784° E	44.470627° N	1 053.7	VESTAS V136-4.2 4200 136.0...	Yes	VESTAS	V136-4.2-4 200	4 200	136.0	112.0	USER	Level V136-4.2MW P01-05	3.0	93.2	10.0	106.9
BT2	9.817747° E	44.466744° N	1 160.0	VESTAS V136-4.2 4200 136.0...	Yes	VESTAS	V136-4.2-4 200	4 200	136.0	112.0	USER	Level V136-4.2MW P01-05	3.0	93.2	10.0	106.9
BT3	9.823149° E	44.467728° N	1 127.0	VESTAS V136-4.2 4200 136.0...	Yes	VESTAS	V136-4.2-4 200	4 200	136.0	112.0	USER	Level V136-4.2MW P01-05	3.0	93.2	10.0	106.9
BT4	9.826883° E	44.468394° N	1 118.5	VESTAS V136-4.2 4200 136.0...	Yes	VESTAS	V136-4.2-4 200	4 200	136.0	112.0	USER	Level V136-4.2MW P01-05	3.0	93.2	10.0	106.9
BT5	9.831671° E	44.469622° N	1 190.0	VESTAS V136-4.2 4200 136.0...	Yes	VESTAS	V136-4.2-4 200	4 200	136.0	112.0	USER	Level V136-4.2MW P01-05	3.0	93.2	10.0	106.9
BT6	9.838952° E	44.471922° N	1 146.5	VESTAS V136-4.2 4200 136.0...	Yes	VESTAS	V136-4.2-4 200	4 200	136.0	112.0	USER	Level V136-4.2MW P01-05	3.0	93.2	10.0	106.9
BT7	9.843650° E	44.472113° N	1 150.0	VESTAS V136-4.2 4200 136.0...	Yes	VESTAS	V136-4.2-4 200	4 200	136.0	112.0	USER	Level V136-4.2MW P01-05	3.0	93.2	10.0	106.9

## Calculation Results

### Sound level

**Noise sensitive area**

No.	Name	Longitude	Latitude	Z	Immission height	Demands		Sound level		Uncertainty margin [dB]	WTG+Uncertainty margin [dB(A)]
						Min Noise	Max From WTGs	Min Noise	Max From WTGs		
				[m]	[m]	[dB(A)]	[dB(A)]	[dB(A)]	[dB(A)]		
GR1.10	Case Vighini	9.814710° E	44.475740° N	896.0	0.0	40.0	34.0	40.0	34.0	2.0	36.0
GR1.13	Case Vighini	9.812090° E	44.474900° N	890.0	0.0	40.0	34.2	40.0	34.2	2.0	36.2
GR2.101	Valdena	9.790090° E	44.455100° N	662.0	0.0	40.0	20.7	40.0	20.7	2.0	22.7
GR2.128	Valdena	9.798640° E	44.453540° N	711.0	0.0	40.0	22.5	40.0	22.5	2.0	24.5
GR3.334	Passo del Brattello	9.825040° E	44.458110° N	961.0	0.0	40.0	30.9	40.0	30.9	2.0	32.9
GR3.336	Passo del Brattello	9.823620° E	44.456820° N	966.0	0.0	40.0	29.8	40.0	29.8	2.0	31.8
GR4.343	Bratto	9.845980° E	44.455460° N	886.0	0.0	40.0	25.4	40.0	25.4	2.0	27.4

### Distances (m)

NSA	WTG						
	BT1	BT2	BT3	BT4	BT5	BT6	BT7
GR1.10	568	1028	1115	1266	1511	1974	2337
GR1.13	521	1012	1187	1381	1664	2162	2529
GR2.101	2614	2552	2981	3278	3680	4313	4661
GR2.128	2292	2112	2507	2788	3177	3802	4133
GR3.334	1612	1121	1079	1152	1383	1892	2147
GR3.336	1687	1197	1212	1312	1560	2074	2329
GR4.343	3000	2572	2271	2091	1942	1912	1859

## DECIBEL - Detailed results

**Calculation:** NOTTURNO **Noise calculation model:** ISO 9613-2 General

### Assumptions

Calculated L(DW) = LWA,ref + K + Dc - (Adiv + Aatm + Agr + Abar + Amisc) - Cmet  
(when calculated with ground attenuation, then Dc = Domega)

LWA,ref:	Sound pressure level at WTG
K:	Pure tone
Dc:	Directivity correction
Adiv:	the attenuation due to geometrical divergence
Aatm:	the attenuation due to atmospheric absorption
Agr:	the attenuation due to ground effect
Abar:	the attenuation due to a barrier
Amisc:	the attenuation due to miscellaneous other effects
Cmet:	Meteorological correction

### Calculation Results

#### Noise sensitive area: GR1.10 Case Vighini

Wind speed: 3.0 m/s

#### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LWA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT1		568	629		19.93	2.00	93.2	0.00	66.97	-	-	0.00	0.00	-
BT1				63	6.49		70.5			0.06	-3.00			64.03
BT1				125	8.61		79.4			0.25	3.54			70.76
BT1				250	9.01		85.2			0.63	8.60			76.20
BT1				500	5.92		88.1			1.19	14.00			82.16
BT1				1000	13.70		88.0			2.33	5.00			74.30
BT1				2000	11.76		84.8			6.10	0.00			73.07
BT1				4000	-8.93		78.7			20.62	0.00			87.59
BT1				8000	-71.08		69.5			73.57	0.00			140.54
BT2	1 028		1 095		13.22	2.00	93.2	0.00	71.79	-	-	0.00	0.00	-
BT2				63	1.62		70.5			0.11	-3.00			68.90
BT2				125	1.60		79.4			0.44	5.55			77.78
BT2				250	3.73		85.2			1.09	8.60			81.48
BT2				500	0.22		88.1			2.08	14.00			87.87
BT2				1000	7.16		88.0			4.05	5.00			80.84
BT2				2000	2.43		84.8			10.62	0.00			82.40
BT2				4000	-29.03		78.7			35.91	0.00			107.69
BT2				8000	-130.41		69.5			128.08	0.00			199.86
BT3	1 115		1 166		12.44	2.00	93.2	0.00	72.34	-	-	0.00	0.00	-
BT3				63	1.07		70.5			0.12	-3.00			69.45
BT3				125	0.90		79.4			0.47	5.67			78.48
BT3				250	3.10		85.2			1.17	8.60			82.10
BT3				500	-0.47		88.1			2.22	14.00			88.55
BT3				1000	6.34		88.0			4.32	5.00			81.65
BT3				2000	1.18		84.8			11.31	0.00			83.65
BT3				4000	-31.93		78.7			38.26	0.00			110.59
BT3				8000	-139.34		69.5			136.46	0.00			208.80
BT4	1 266		1 310		11.01	2.00	93.2	0.00	73.34	-	-	0.00	0.00	-
BT4				63	0.04		70.5			0.13	-3.00			70.47
BT4				125	-0.28		79.4			0.52	5.79			79.65
BT4				250	1.95		85.2			1.31	8.60			83.25
BT4				500	-1.74		88.1			2.49	14.00			89.83
BT4				1000	4.81		88.0			4.85	5.00			83.19
BT4				2000	-1.22		84.8			12.70	0.00			86.05
BT4				4000	-37.64		78.7			42.96	0.00			116.30
BT4				8000	-157.12		69.5			153.23	0.00			226.58
BT5	1 511		1 564		8.81	2.00	93.2	0.00	74.89	-	-	0.00	0.00	-
BT5				63	-1.52		70.5			0.16	-3.00			72.04
BT5				125	-1.98		79.4			0.63	5.84			81.35
BT5				250	0.16		85.2			1.56	8.60			85.05
BT5				500	-3.77		88.1			2.97	14.00			91.86
BT5				1000	2.32		88.0			5.79	5.00			85.67
BT5				2000	-5.23		84.8			15.17	0.00			90.06

To be continued on next page...



## DECIBEL - Detailed results

**Calculation:** NOTTURNO **Noise calculation model:** ISO 9613-2 General

...continued from previous page

### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT5				4000	-47.53		78.7			51.31	0.00			126.19
BT5				8000	-188.44		69.5			183.01	0.00			257.90
BT6		1 974	2 007		5.71	2.00	93.2	0.00	77.05	-	-	0.00	0.00	-
BT6				63	-3.73		70.5			0.20	-3.00			74.25
BT6				125	-4.33		79.4			0.80	5.85			83.70
BT6				250	-2.45		85.2			2.01	8.60			87.66
BT6				500	-6.78		88.1			3.81	14.00			94.87
BT6				1000	-1.48		88.0			7.43	5.00			89.48
BT6				2000	-11.69		84.8			19.47	0.00			96.52
BT6				4000	-64.23		78.7			65.84	0.00			142.89
BT6				8000	-242.45		69.5			234.85	0.00			311.90
BT7		2 337	2 365		3.66	2.00	93.2	0.00	78.48	-	-	0.00	0.00	-
BT7				63	-5.20		70.5			0.24	-3.00			75.71
BT7				125	-5.90		79.4			0.95	5.85			85.27
BT7				250	-4.24		85.2			2.37	8.60			89.44
BT7				500	-8.88		88.1			4.49	14.00			96.97
BT7				1000	-4.23		88.0			8.75	5.00			92.23
BT7				2000	-16.59		84.8			22.94	0.00			101.42
BT7				4000	-77.40		78.7			77.58	0.00			156.06
BT7				8000	-285.76		69.5			276.74	0.00			355.22
Sum					22.13									
Sum				63	38.03									
Sum				125	28.94									
Sum				250	22.62									
Sum				500	13.83									
Sum				1000	17.88									
Sum				2000	13.63									
Sum				4000	-7.86									
Sum				8000	-67.98									

- Data undefined due to calculation with octave data

Wind speed: 4.0 m/s

### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT1		568	629		20.34	2.00	93.6	0.00	66.97	-	-	0.00	0.00	-
BT1				63	7.26		71.3			0.06	-3.00			64.03
BT1				125	9.31		80.1			0.25	3.54			70.76
BT1				250	9.61		85.8			0.63	8.60			76.20
BT1				500	6.42		88.6			1.19	14.00			82.16
BT1				1000	14.01		88.3			2.33	5.00			74.30
BT1				2000	11.91		85.0			6.10	0.00			73.07
BT1				4000	-8.87		78.7			20.62	0.00			87.59
BT1				8000	-71.13		69.4			73.57	0.00			140.54
BT2		1 028	1 095		13.68	2.00	93.6	0.00	71.79	-	-	0.00	0.00	-
BT2				63	2.40		71.3			0.11	-3.00			68.90
BT2				125	2.30		80.1			0.44	5.55			77.78
BT2				250	4.33		85.8			1.09	8.60			81.48
BT2				500	0.72		88.6			2.08	14.00			87.87
BT2				1000	7.47		88.3			4.05	5.00			80.84
BT2				2000	2.57		85.0			10.62	0.00			82.40
BT2				4000	-28.96		78.7			35.91	0.00			107.69
BT2				8000	-130.46		69.4			128.08	0.00			199.86
BT3		1 115	1 166		12.90	2.00	93.6	0.00	72.34	-	-	0.00	0.00	-
BT3				63	1.84		71.3			0.12	-3.00			69.45
BT3				125	1.60		80.1			0.47	5.67			78.48
BT3				250	3.70		85.8			1.17	8.60			82.10
BT3				500	0.03		88.6			2.22	14.00			88.55
BT3				1000	6.65		88.3			4.32	5.00			81.65
BT3				2000	1.33		85.0			11.31	0.00			83.65
BT3				4000	-31.86		78.7			38.26	0.00			110.59
BT3				8000	-139.39		69.4			136.46	0.00			208.80
BT4		1 266	1 310		11.49	2.00	93.6	0.00	73.34	-	-	0.00	0.00	-

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## DECIBEL - Detailed results

**Calculation:** NOTTURNO **Noise calculation model:** ISO 9613-2 General

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### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT4				63	0.82		71.3			0.13	-3.00			70.47
BT4				125	0.42		80.1			0.52	5.79			79.65
BT4				250	2.55		85.8			1.31	8.60			83.25
BT4				500	-1.24		88.6			2.49	14.00			89.83
BT4				1000	5.11		88.3			4.85	5.00			83.19
BT4				2000	-1.07		85.0			12.70	0.00			86.05
BT4				4000	-37.57		78.7			42.96	0.00			116.30
BT4				8000	-157.17		69.4			153.23	0.00			226.58
BT5	1 511	1 564			9.32	2.00	93.6	0.00	74.89	-	-	0.00	0.00	-
BT5				63	-0.75		71.3			0.16	-3.00			72.04
BT5				125	-1.28		80.1			0.63	5.84			81.35
BT5				250	0.76		85.8			1.56	8.60			85.05
BT5				500	-3.27		88.6			2.97	14.00			91.86
BT5				1000	2.63		88.3			5.79	5.00			85.67
BT5				2000	-5.08		85.0			15.17	0.00			90.06
BT5				4000	-47.46		78.7			51.31	0.00			126.19
BT5				8000	-188.49		69.4			183.01	0.00			257.90
BT6	1 974	2 007			6.25	2.00	93.6	0.00	77.05	-	-	0.00	0.00	-
BT6				63	-2.96		71.3			0.20	-3.00			74.25
BT6				125	-3.63		80.1			0.80	5.85			83.70
BT6				250	-1.85		85.8			2.01	8.60			87.66
BT6				500	-6.28		88.6			3.81	14.00			94.87
BT6				1000	-1.18		88.3			7.43	5.00			89.48
BT6				2000	-11.55		85.0			19.47	0.00			96.52
BT6				4000	-64.16		78.7			65.84	0.00			142.89
BT6				8000	-242.49		69.4			234.85	0.00			311.90
BT7	2 337	2 365			4.22	2.00	93.6	0.00	78.48	-	-	0.00	0.00	-
BT7				63	-4.42		71.3			0.24	-3.00			75.71
BT7				125	-5.20		80.1			0.95	5.85			85.27
BT7				250	-3.64		85.8			2.37	8.60			89.44
BT7				500	-8.38		88.6			4.49	14.00			96.97
BT7				1000	-3.93		88.3			8.75	5.00			92.23
BT7				2000	-16.45		85.0			22.94	0.00			101.42
BT7				4000	-77.33		78.7			77.58	0.00			156.06
BT7				8000	-285.81		69.4			276.74	0.00			355.22
Sum					22.56									
Sum				63	38.81									
Sum				125	29.64									
Sum				250	23.22									
Sum				500	14.33									
Sum				1000	18.19									
Sum				2000	13.78									
Sum				4000	-7.80									
Sum				8000	-68.03									

- Data undefined due to calculation with octave data

Wind speed: 5.0 m/s

### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT1		568	629		23.25	2.00	96.5	0.00	66.97	-	-	0.00	0.00	-
BT1				63	10.56		74.6			0.06	-3.00			64.03
BT1				125	12.54		83.3			0.25	3.54			70.76
BT1				250	12.73		88.9			0.63	8.60			76.20
BT1				500	9.39		91.6			1.19	14.00			82.16
BT1				1000	16.81		91.1			2.33	5.00			74.30
BT1				2000	14.55		87.6			6.10	0.00			73.07
BT1				4000	-6.46		81.1			20.62	0.00			87.59
BT1				8000	-69.04		71.5			73.57	0.00			140.54
BT2	1 028	1 095			16.64	2.00	96.5	0.00	71.79	-	-	0.00	0.00	-
BT2				63	5.70		74.6			0.11	-3.00			68.90
BT2				125	5.53		83.3			0.44	5.55			77.78
BT2				250	7.45		88.9			1.09	8.60			81.48

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## DECIBEL - Detailed results

**Calculation:** NOTTURNO **Noise calculation model:** ISO 9613-2 General

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### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT2				500	3.69		91.6			2.08	14.00			87.87
BT2				1000	10.27		91.1			4.05	5.00			80.84
BT2				2000	5.22		87.6			10.62	0.00			82.40
BT2				4000	-26.55		81.1			35.91	0.00			107.69
BT2				8000	-128.37		71.5			128.08	0.00			199.86
BT3	1 115	1 166			15.88	2.00	96.5	0.00	72.34	-	-	0.00	0.00	-
BT3				63	5.14		74.6			0.12	-3.00			69.45
BT3				125	4.83		83.3			0.47	5.67			78.48
BT3				250	6.83		88.9			1.17	8.60			82.10
BT3				500	3.00		91.6			2.22	14.00			88.55
BT3				1000	9.45		91.1			4.32	5.00			81.65
BT3				2000	3.97		87.6			11.31	0.00			83.65
BT3				4000	-29.45		81.1			38.26	0.00			110.59
BT3				8000	-137.30		71.5			136.46	0.00			208.80
BT4	1 266	1 310			14.48	2.00	96.5	0.00	73.34	-	-	0.00	0.00	-
BT4				63	4.12		74.6			0.13	-3.00			70.47
BT4				125	3.65		83.3			0.52	5.79			79.65
BT4				250	5.68		88.9			1.31	8.60			83.25
BT4				500	1.72		91.6			2.49	14.00			89.83
BT4				1000	7.91		91.1			4.85	5.00			83.19
BT4				2000	1.58		87.6			12.70	0.00			86.05
BT4				4000	-35.16		81.1			42.96	0.00			116.30
BT4				8000	-155.08		71.5			153.23	0.00			226.58
BT5	1 511	1 564			12.34	2.00	96.5	0.00	74.89	-	-	0.00	0.00	-
BT5				63	2.55		74.6			0.16	-3.00			72.04
BT5				125	1.95		83.3			0.63	5.84			81.35
BT5				250	3.88		88.9			1.56	8.60			85.05
BT5				500	-0.31		91.6			2.97	14.00			91.86
BT5				1000	5.43		91.1			5.79	5.00			85.67
BT5				2000	-2.44		87.6			15.17	0.00			90.06
BT5				4000	-45.05		81.1			51.31	0.00			126.19
BT5				8000	-186.40		71.5			183.01	0.00			257.90
BT6	1 974	2 007			9.31	2.00	96.5	0.00	77.05	-	-	0.00	0.00	-
BT6				63	0.34		74.6			0.20	-3.00			74.25
BT6				125	-0.40		83.3			0.80	5.85			83.70
BT6				250	1.27		88.9			2.01	8.60			87.66
BT6				500	-3.31		91.6			3.81	14.00			94.87
BT6				1000	1.62		91.1			7.43	5.00			89.48
BT6				2000	-8.90		87.6			19.47	0.00			96.52
BT6				4000	-61.75		81.1			65.84	0.00			142.89
BT6				8000	-240.41		71.5			234.85	0.00			311.90
BT7	2 337	2 365			7.31	2.00	96.5	0.00	78.48	-	-	0.00	0.00	-
BT7				63	-1.12		74.6			0.24	-3.00			75.71
BT7				125	-1.97		83.3			0.95	5.85			85.27
BT7				250	-0.51		88.9			2.37	8.60			89.44
BT7				500	-5.42		91.6			4.49	14.00			96.97
BT7				1000	-1.13		91.1			8.75	5.00			92.23
BT7				2000	-13.80		87.6			22.94	0.00			101.42
BT7				4000	-74.92		81.1			77.58	0.00			156.06
BT7				8000	-283.72		71.5			276.74	0.00			355.22
Sum					25.51									
Sum				63	42.11									
Sum				125	32.87									
Sum				250	26.34									
Sum				500	17.29									
Sum				1000	20.99									
Sum				2000	16.43									
Sum				4000	-5.39									
Sum				8000	-65.94									

- Data undefined due to calculation with octave data

## DECIBEL - Detailed results

**Calculation:** NOTTURNO **Noise calculation model:** ISO 9613-2 General

Wind speed: 6.0 m/s

### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT1		568	629		<b>26.76</b>	2.00	100.0	0.00	66.97	-	-	0.00	0.00	-
BT1				63	<b>14.20</b>		78.2			0.06	-3.00			64.03
BT1				125	<b>16.16</b>		86.9			0.25	3.54			70.76
BT1				250	<b>16.33</b>		92.5			0.63	8.60			76.20
BT1				500	<b>12.92</b>		95.1			1.19	14.00			82.16
BT1				1000	<b>20.28</b>		94.6			2.33	5.00			74.30
BT1				2000	<b>17.93</b>		91.0			6.10	0.00			73.07
BT1				4000	<b>-3.26</b>		84.3			20.62	0.00			87.59
BT1				8000	<b>-65.98</b>		74.6			73.57	0.00			140.54
BT2	1 028		1 095		<b>20.18</b>	2.00	100.0	0.00	71.79	-	-	0.00	0.00	-
BT2				63	<b>9.33</b>		78.2			0.11	-3.00			68.90
BT2				125	<b>9.14</b>		86.9			0.44	5.55			77.78
BT2				250	<b>11.05</b>		92.5			1.09	8.60			81.48
BT2				500	<b>7.22</b>		95.1			2.08	14.00			87.87
BT2				1000	<b>13.74</b>		94.6			4.05	5.00			80.84
BT2				2000	<b>8.60</b>		91.0			10.62	0.00			82.40
BT2				4000	<b>-23.35</b>		84.3			35.91	0.00			107.69
BT2				8000	<b>-125.31</b>		74.6			128.08	0.00			199.86
BT3	1 115		1 166		<b>19.41</b>	2.00	100.0	0.00	72.34	-	-	0.00	0.00	-
BT3				63	<b>8.78</b>		78.2			0.12	-3.00			69.45
BT3				125	<b>8.45</b>		86.9			0.47	5.67			78.48
BT3				250	<b>10.43</b>		92.5			1.17	8.60			82.10
BT3				500	<b>6.53</b>		95.1			2.22	14.00			88.55
BT3				1000	<b>12.92</b>		94.6			4.32	5.00			81.65
BT3				2000	<b>7.35</b>		91.0			11.31	0.00			83.65
BT3				4000	<b>-26.25</b>		84.3			38.26	0.00			110.59
BT3				8000	<b>-134.24</b>		74.6			136.46	0.00			208.80
BT4	1 266		1 310		<b>18.02</b>	2.00	100.0	0.00	73.34	-	-	0.00	0.00	-
BT4				63	<b>7.76</b>		78.2			0.13	-3.00			70.47
BT4				125	<b>7.27</b>		86.9			0.52	5.79			79.65
BT4				250	<b>9.28</b>		92.5			1.31	8.60			83.25
BT4				500	<b>5.25</b>		95.1			2.49	14.00			89.83
BT4				1000	<b>11.39</b>		94.6			4.85	5.00			83.19
BT4				2000	<b>4.95</b>		91.0			12.70	0.00			86.05
BT4				4000	<b>-31.96</b>		84.3			42.96	0.00			116.30
BT4				8000	<b>-152.02</b>		74.6			153.23	0.00			226.58
BT5	1 511		1 564		<b>15.89</b>	2.00	100.0	0.00	74.89	-	-	0.00	0.00	-
BT5				63	<b>6.19</b>		78.2			0.16	-3.00			72.04
BT5				125	<b>5.57</b>		86.9			0.63	5.84			81.35
BT5				250	<b>7.48</b>		92.5			1.56	8.60			85.05
BT5				500	<b>3.22</b>		95.1			2.97	14.00			91.86
BT5				1000	<b>8.90</b>		94.6			5.79	5.00			85.67
BT5				2000	<b>0.94</b>		91.0			15.17	0.00			90.06
BT5				4000	<b>-41.85</b>		84.3			51.31	0.00			126.19
BT5				8000	<b>-183.34</b>		74.6			183.01	0.00			257.90
BT6	1 974		2 007		<b>12.87</b>	2.00	100.0	0.00	77.05	-	-	0.00	0.00	-
BT6				63	<b>3.98</b>		78.2			0.20	-3.00			74.25
BT6				125	<b>3.22</b>		86.9			0.80	5.85			83.70
BT6				250	<b>4.87</b>		92.5			2.01	8.60			87.66
BT6				500	<b>0.22</b>		95.1			3.81	14.00			94.87
BT6				1000	<b>5.10</b>		94.6			7.43	5.00			89.48
BT6				2000	<b>-5.52</b>		91.0			19.47	0.00			96.52
BT6				4000	<b>-58.55</b>		84.3			65.84	0.00			142.89
BT6				8000	<b>-237.34</b>		74.6			234.85	0.00			311.90
BT7	2 337		2 365		<b>10.89</b>	2.00	100.0	0.00	78.48	-	-	0.00	0.00	-
BT7				63	<b>2.52</b>		78.2			0.24	-3.00			75.71
BT7				125	<b>1.65</b>		86.9			0.95	5.85			85.27
BT7				250	<b>3.09</b>		92.5			2.37	8.60			89.44
BT7				500	<b>-1.89</b>		95.1			4.49	14.00			96.97
BT7				1000	<b>2.35</b>		94.6			8.75	5.00			92.23
BT7				2000	<b>-10.42</b>		91.0			22.94	0.00			101.42
BT7				4000	<b>-71.72</b>		84.3			77.58	0.00			156.06
BT7				8000	<b>-280.66</b>		74.6			276.74	0.00			355.22

To be continued on next page...

## DECIBEL - Detailed results

**Calculation:** NOTTURNO **Noise calculation model:** ISO 9613-2 General

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### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
Sum					<b>29.03</b>									
Sum				63	<b>45.74</b>									
Sum				125	<b>36.49</b>									
Sum				250	<b>29.94</b>									
Sum				500	<b>20.82</b>									
Sum				1000	<b>24.46</b>									
Sum				2000	<b>19.81</b>									
Sum				4000	<b>-2.19</b>									
Sum				8000	<b>-62.88</b>									

- Data undefined due to calculation with octave data

Wind speed: 7.0 m/s

### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT1		568	629		<b>29.96</b>	2.00	103.2	0.00	66.97	-	-	0.00	0.00	-
BT1				63	<b>17.46</b>		81.5			0.06	-3.00			64.03
BT1				125	<b>19.44</b>		90.2			0.25	3.54			70.76
BT1				250	<b>19.59</b>		95.8			0.63	8.60			76.20
BT1				500	<b>16.12</b>		98.3			1.19	14.00			82.16
BT1				1000	<b>23.48</b>		97.8			2.33	5.00			74.30
BT1				2000	<b>21.01</b>		94.1			6.10	0.00			73.07
BT1				4000	<b>-0.21</b>		87.4			20.62	0.00			87.59
BT1				8000	<b>-63.02</b>		77.5			73.57	0.00			140.54
BT2	1 028		1 095		<b>23.39</b>	2.00	103.2	0.00	71.79	-	-	0.00	0.00	-
BT2				63	<b>12.60</b>		81.5			0.11	-3.00			68.90
BT2				125	<b>12.43</b>		90.2			0.44	5.55			77.78
BT2				250	<b>14.31</b>		95.8			1.09	8.60			81.48
BT2				500	<b>10.42</b>		98.3			2.08	14.00			87.87
BT2				1000	<b>16.94</b>		97.8			4.05	5.00			80.84
BT2				2000	<b>11.68</b>		94.1			10.62	0.00			82.40
BT2				4000	<b>-20.31</b>		87.4			35.91	0.00			107.69
BT2				8000	<b>-122.35</b>		77.5			128.08	0.00			199.86
BT3	1 115		1 166		<b>22.63</b>	2.00	103.2	0.00	72.34	-	-	0.00	0.00	-
BT3				63	<b>12.04</b>		81.5			0.12	-3.00			69.45
BT3				125	<b>11.73</b>		90.2			0.47	5.67			78.48
BT3				250	<b>13.68</b>		95.8			1.17	8.60			82.10
BT3				500	<b>9.73</b>		98.3			2.22	14.00			88.55
BT3				1000	<b>16.12</b>		97.8			4.32	5.00			81.65
BT3				2000	<b>10.43</b>		94.1			11.31	0.00			83.65
BT3				4000	<b>-23.21</b>		87.4			38.26	0.00			110.59
BT3				8000	<b>-131.28</b>		77.5			136.46	0.00			208.80
BT4	1 266		1 310		<b>21.24</b>	2.00	103.2	0.00	73.34	-	-	0.00	0.00	-
BT4				63	<b>11.02</b>		81.5			0.13	-3.00			70.47
BT4				125	<b>10.55</b>		90.2			0.52	5.79			79.65
BT4				250	<b>12.53</b>		95.8			1.31	8.60			83.25
BT4				500	<b>8.45</b>		98.3			2.49	14.00			89.83
BT4				1000	<b>14.59</b>		97.8			4.85	5.00			83.19
BT4				2000	<b>8.03</b>		94.1			12.70	0.00			86.05
BT4				4000	<b>-28.92</b>		87.4			42.96	0.00			116.30
BT4				8000	<b>-149.06</b>		77.5			153.23	0.00			226.58
BT5	1 511		1 564		<b>19.12</b>	2.00	103.2	0.00	74.89	-	-	0.00	0.00	-
BT5				63	<b>9.45</b>		81.5			0.16	-3.00			72.04
BT5				125	<b>8.85</b>		90.2			0.63	5.84			81.35
BT5				250	<b>10.74</b>		95.8			1.56	8.60			85.05
BT5				500	<b>6.42</b>		98.3			2.97	14.00			91.86
BT5				1000	<b>12.10</b>		97.8			5.79	5.00			85.67
BT5				2000	<b>4.02</b>		94.1			15.17	0.00			90.06
BT5				4000	<b>-38.81</b>		87.4			51.31	0.00			126.19
BT5				8000	<b>-180.38</b>		77.5			183.01	0.00			257.90
BT6	1 974		2 007		<b>16.11</b>	2.00	103.2	0.00	77.05	-	-	0.00	0.00	-
BT6				63	<b>7.24</b>		81.5			0.20	-3.00			74.25
BT6				125	<b>6.50</b>		90.2			0.80	5.85			83.70

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Project:

**230515 Modello Borgo Taro per acustica**

Licensed user:

**MORI MANTOVANI ASSOCIATI SRL**

VIA STRASBURGO 18A

IT-43123 PARMA

+390521239944

GIULIO BARTOLI / giulio@morimantovani.it

Calculated:

02/06/2023 13:09/3.6.366

## DECIBEL - Detailed results

**Calculation:** NOTTURNO **Noise calculation model:** ISO 9613-2 General

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**WTG**

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT6				250	8.13		95.8			2.01	8.60			87.66
BT6				500	3.42		98.3			3.81	14.00			94.87
BT6				1000	8.30		97.8			7.43	5.00			89.48
BT6				2000	-2.44		94.1			19.47	0.00			96.52
BT6				4000	-55.51		87.4			65.84	0.00			142.89
BT6				8000	-234.39		77.5			234.85	0.00			311.90
BT7		2 337	2 365		14.13	2.00	103.2	0.00	78.48	-	-	0.00	0.00	-
BT7				63	5.78		81.5			0.24	-3.00			75.71
BT7				125	4.93		90.2			0.95	5.85			85.27
BT7				250	6.34		95.8			2.37	8.60			89.44
BT7				500	1.31		98.3			4.49	14.00			96.97
BT7				1000	5.55		97.8			8.75	5.00			92.23
BT7				2000	-7.34		94.1			22.94	0.00			101.42
BT7				4000	-68.68		87.4			77.58	0.00			156.06
BT7				8000	-277.71		77.5			276.74	0.00			355.22
Sum					32.24									
Sum				63	49.01									
Sum				125	39.77									
Sum				250	33.20									
Sum				500	24.02									
Sum				1000	27.66									
Sum				2000	22.88									
Sum				4000	0.86									
Sum				8000	-59.92									

- Data undefined due to calculation with octave data

Wind speed: 8.0 m/s

**WTG**

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT1		568	629		32.76	2.00	106.0	0.00	66.97	-	-	0.00	0.00	-
BT1				63	20.36		84.4			0.06	-3.00			64.03
BT1				125	22.34		93.1			0.25	3.54			70.76
BT1				250	22.45		98.7			0.63	8.60			76.20
BT1				500	18.98		101.1			1.19	14.00			82.16
BT1				1000	26.22		100.5			2.33	5.00			74.30
BT1				2000	23.71		96.8			6.10	0.00			73.07
BT1				4000	2.39		90.0			20.62	0.00			87.59
BT1				8000	-60.53		80.0			73.57	0.00			140.54
BT2		1 028	1 095		26.20	2.00	106.0	0.00	71.79	-	-	0.00	0.00	-
BT2				63	15.50		84.4			0.11	-3.00			68.90
BT2				125	15.33		93.1			0.44	5.55			77.78
BT2				250	17.17		98.7			1.09	8.60			81.48
BT2				500	13.28		101.1			2.08	14.00			87.87
BT2				1000	19.68		100.5			4.05	5.00			80.84
BT2				2000	14.38		96.8			10.62	0.00			82.40
BT2				4000	-17.71		90.0			35.91	0.00			107.69
BT2				8000	-119.86		80.0			128.08	0.00			199.86
BT3		1 115	1 166		25.45	2.00	106.0	0.00	72.34	-	-	0.00	0.00	-
BT3				63	14.94		84.4			0.12	-3.00			69.45
BT3				125	14.63		93.1			0.47	5.67			78.48
BT3				250	16.55		98.7			1.17	8.60			82.10
BT3				500	12.59		101.1			2.22	14.00			88.55
BT3				1000	18.86		100.5			4.32	5.00			81.65
BT3				2000	13.13		96.8			11.31	0.00			83.65
BT3				4000	-20.61		90.0			38.26	0.00			110.59
BT3				8000	-128.79		80.0			136.46	0.00			208.80
BT4		1 266	1 310		24.06	2.00	106.0	0.00	73.34	-	-	0.00	0.00	-
BT4				63	13.92		84.4			0.13	-3.00			70.47
BT4				125	13.45		93.1			0.52	5.79			79.65
BT4				250	15.40		98.7			1.31	8.60			83.25
BT4				500	11.31		101.1			2.49	14.00			89.83
BT4				1000	17.33		100.5			4.85	5.00			83.19

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## DECIBEL - Detailed results

**Calculation:** NOTTURNO **Noise calculation model:** ISO 9613-2 General

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### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT4				2000	10.73		96.8			12.70	0.00			86.05
BT4				4000	-26.32		90.0			42.96	0.00			116.30
BT4				8000	-146.57		80.0			153.23	0.00			226.58
BT5		1 511	1 564		21.95	2.00	106.0	0.00	74.89	-	-	0.00	0.00	-
BT5				63	12.35		84.4			0.16	-3.00			72.04
BT5				125	11.75		93.1			0.63	5.84			81.35
BT5				250	13.60		98.7			1.56	8.60			85.05
BT5				500	9.29		101.1			2.97	14.00			91.86
BT5				1000	14.84		100.5			5.79	5.00			85.67
BT5				2000	6.72		96.8			15.17	0.00			90.06
BT5				4000	-36.21		90.0			51.31	0.00			126.19
BT5				8000	-177.89		80.0			183.01	0.00			257.90
BT6		1 974	2 007		18.96	2.00	106.0	0.00	77.05	-	-	0.00	0.00	-
BT6				63	10.14		84.4			0.20	-3.00			74.25
BT6				125	9.40		93.1			0.80	5.85			83.70
BT6				250	10.99		98.7			2.01	8.60			87.66
BT6				500	6.28		101.1			3.81	14.00			94.87
BT6				1000	11.04		100.5			7.43	5.00			89.48
BT6				2000	0.26		96.8			19.47	0.00			96.52
BT6				4000	-52.91		90.0			65.84	0.00			142.89
BT6				8000	-231.90		80.0			234.85	0.00			311.90
BT7		2 337	2 365		16.98	2.00	106.0	0.00	78.48	-	-	0.00	0.00	-
BT7				63	8.68		84.4			0.24	-3.00			75.71
BT7				125	7.83		93.1			0.95	5.85			85.27
BT7				250	9.21		98.7			2.37	8.60			89.44
BT7				500	4.17		101.1			4.49	14.00			96.97
BT7				1000	8.29		100.5			8.75	5.00			92.23
BT7				2000	-4.64		96.8			22.94	0.00			101.42
BT7				4000	-66.08		90.0			77.58	0.00			156.06
BT7				8000	-275.22		80.0			276.74	0.00			355.22
Sum					35.04									
Sum				63	51.91									
Sum				125	42.67									
Sum				250	36.06									
Sum				500	26.89									
Sum				1000	30.40									
Sum				2000	25.58									
Sum				4000	3.46									
Sum				8000	-57.43									

- Data undefined due to calculation with octave data

Wind speed: 9.0 m/s

### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT1		568	629		33.66	2.00	106.9	0.00	66.97	-	-	0.00	0.00	-
BT1				63	21.36		85.4			0.06	-3.00			64.03
BT1				125	23.29		94.1			0.25	3.54			70.76
BT1				250	23.39		99.6			0.63	8.60			76.20
BT1				500	19.88		102.0			1.19	14.00			82.16
BT1				1000	27.12		101.4			2.33	5.00			74.30
BT1				2000	24.51		97.6			6.10	0.00			73.07
BT1				4000	3.17		90.8			20.62	0.00			87.59
BT1				8000	-59.86		80.7			73.57	0.00			140.54
BT2		1 028	1 095		27.12	2.00	106.9	0.00	71.79	-	-	0.00	0.00	-
BT2				63	16.50		85.4			0.11	-3.00			68.90
BT2				125	16.27		94.1			0.44	5.55			77.78
BT2				250	18.11		99.6			1.09	8.60			81.48
BT2				500	14.18		102.0			2.08	14.00			87.87
BT2				1000	20.58		101.4			4.05	5.00			80.84
BT2				2000	15.18		97.6			10.62	0.00			82.40
BT2				4000	-16.93		90.8			35.91	0.00			107.69
BT2				8000	-119.19		80.7			128.08	0.00			199.86

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## DECIBEL - Detailed results

**Calculation:** NOTTURNO **Noise calculation model:** ISO 9613-2 General

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### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT3		1 115	1 166		<b>26.36</b>	2.00	106.9	0.00	72.34	-	-	0.00	0.00	-
BT3				63	<b>15.94</b>		85.4			0.12	-3.00			69.45
BT3				125	<b>15.58</b>		94.1			0.47	5.67			78.48
BT3				250	<b>17.48</b>		99.6			1.17	8.60			82.10
BT3				500	<b>13.49</b>		102.0			2.22	14.00			88.55
BT3				1000	<b>19.76</b>		101.4			4.32	5.00			81.65
BT3				2000	<b>13.93</b>		97.6			11.31	0.00			83.65
BT3				4000	<b>-19.83</b>		90.8			38.26	0.00			110.59
BT3				8000	<b>-128.12</b>		80.7			136.46	0.00			208.80
BT4		1 266	1 310		<b>24.99</b>	2.00	106.9	0.00	73.34	-	-	0.00	0.00	-
BT4				63	<b>14.92</b>		85.4			0.13	-3.00			70.47
BT4				125	<b>14.40</b>		94.1			0.52	5.79			79.65
BT4				250	<b>16.33</b>		99.6			1.31	8.60			83.25
BT4				500	<b>12.21</b>		102.0			2.49	14.00			89.83
BT4				1000	<b>18.23</b>		101.4			4.85	5.00			83.19
BT4				2000	<b>11.53</b>		97.6			12.70	0.00			86.05
BT4				4000	<b>-25.54</b>		90.8			42.96	0.00			116.30
BT4				8000	<b>-145.90</b>		80.7			153.23	0.00			226.58
BT5		1 511	1 564		<b>22.87</b>	2.00	106.9	0.00	74.89	-	-	0.00	0.00	-
BT5				63	<b>13.35</b>		85.4			0.16	-3.00			72.04
BT5				125	<b>12.70</b>		94.1			0.63	5.84			81.35
BT5				250	<b>14.54</b>		99.6			1.56	8.60			85.05
BT5				500	<b>10.19</b>		102.0			2.97	14.00			91.86
BT5				1000	<b>15.74</b>		101.4			5.79	5.00			85.67
BT5				2000	<b>7.52</b>		97.6			15.17	0.00			90.06
BT5				4000	<b>-35.43</b>		90.8			51.31	0.00			126.19
BT5				8000	<b>-177.22</b>		80.7			183.01	0.00			257.90
BT6		1 974	2 007		<b>19.89</b>	2.00	106.9	0.00	77.05	-	-	0.00	0.00	-
BT6				63	<b>11.14</b>		85.4			0.20	-3.00			74.25
BT6				125	<b>10.35</b>		94.1			0.80	5.85			83.70
BT6				250	<b>11.93</b>		99.6			2.01	8.60			87.66
BT6				500	<b>7.18</b>		102.0			3.81	14.00			94.87
BT6				1000	<b>11.94</b>		101.4			7.43	5.00			89.48
BT6				2000	<b>1.06</b>		97.6			19.47	0.00			96.52
BT6				4000	<b>-52.12</b>		90.8			65.84	0.00			142.89
BT6				8000	<b>-231.22</b>		80.7			234.85	0.00			311.90
BT7		2 337	2 365		<b>17.92</b>	2.00	106.9	0.00	78.48	-	-	0.00	0.00	-
BT7				63	<b>9.68</b>		85.4			0.24	-3.00			75.71
BT7				125	<b>8.78</b>		94.1			0.95	5.85			85.27
BT7				250	<b>10.14</b>		99.6			2.37	8.60			89.44
BT7				500	<b>5.07</b>		102.0			4.49	14.00			96.97
BT7				1000	<b>9.19</b>		101.4			8.75	5.00			92.23
BT7				2000	<b>-3.84</b>		97.6			22.94	0.00			101.42
BT7				4000	<b>-65.29</b>		90.8			77.58	0.00			156.06
BT7				8000	<b>-274.54</b>		80.7			276.74	0.00			355.22
Sum					<b>35.95</b>									
Sum				63	<b>52.91</b>									
Sum				125	<b>43.62</b>									
Sum				250	<b>37.00</b>									
Sum				500	<b>27.79</b>									
Sum				1000	<b>31.30</b>									
Sum				2000	<b>26.38</b>									
Sum				4000	<b>4.24</b>									
Sum				8000	<b>-56.76</b>									

- Data undefined due to calculation with octave data

Wind speed: 10.0 m/s

### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT1		568	629		<b>33.66</b>	2.00	106.9	0.00	66.97	-	-	0.00	0.00	-
BT1				63	<b>21.26</b>		85.3			0.06	-3.00			64.03
BT1				125	<b>23.26</b>		94.0			0.25	3.54			70.76

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## DECIBEL - Detailed results

**Calculation:** NOTTURNO **Noise calculation model:** ISO 9613-2 General

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### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT1				250	23.35		99.6			0.63	8.60			76.20
BT1				500	19.88		102.0			1.19	14.00			82.16
BT1				1000	27.12		101.4			2.33	5.00			74.30
BT1				2000	24.61		97.7			6.10	0.00			73.07
BT1				4000	3.27		90.9			20.62	0.00			87.59
BT1				8000	-59.72		80.8			73.57	0.00			140.54
BT2	1 028		1 095		27.11	2.00	106.9	0.00	71.79	-	-	0.00	0.00	-
BT2				63	16.40		85.3			0.11	-3.00			68.90
BT2				125	16.24		94.0			0.44	5.55			77.78
BT2				250	18.07		99.6			1.09	8.60			81.48
BT2				500	14.18		102.0			2.08	14.00			87.87
BT2				1000	20.58		101.4			4.05	5.00			80.84
BT2				2000	15.28		97.7			10.62	0.00			82.40
BT2				4000	-16.83		90.9			35.91	0.00			107.69
BT2				8000	-119.05		80.8			128.08	0.00			199.86
BT3	1 115		1 166		26.35	2.00	106.9	0.00	72.34	-	-	0.00	0.00	-
BT3				63	15.84		85.3			0.12	-3.00			69.45
BT3				125	15.55		94.0			0.47	5.67			78.48
BT3				250	17.45		99.6			1.17	8.60			82.10
BT3				500	13.49		102.0			2.22	14.00			88.55
BT3				1000	19.76		101.4			4.32	5.00			81.65
BT3				2000	14.03		97.7			11.31	0.00			83.65
BT3				4000	-19.73		90.9			38.26	0.00			110.59
BT3				8000	-127.98		80.8			136.46	0.00			208.80
BT4	1 266		1 310		24.97	2.00	106.9	0.00	73.34	-	-	0.00	0.00	-
BT4				63	14.82		85.3			0.13	-3.00			70.47
BT4				125	14.37		94.0			0.52	5.79			79.65
BT4				250	16.30		99.6			1.31	8.60			83.25
BT4				500	12.21		102.0			2.49	14.00			89.83
BT4				1000	18.23		101.4			4.85	5.00			83.19
BT4				2000	11.63		97.7			12.70	0.00			86.05
BT4				4000	-25.44		90.9			42.96	0.00			116.30
BT4				8000	-145.76		80.8			153.23	0.00			226.58
BT5	1 511		1 564		22.85	2.00	106.9	0.00	74.89	-	-	0.00	0.00	-
BT5				63	13.25		85.3			0.16	-3.00			72.04
BT5				125	12.67		94.0			0.63	5.84			81.35
BT5				250	14.50		99.6			1.56	8.60			85.05
BT5				500	10.19		102.0			2.97	14.00			91.86
BT5				1000	15.74		101.4			5.79	5.00			85.67
BT5				2000	7.62		97.7			15.17	0.00			90.06
BT5				4000	-35.33		90.9			51.31	0.00			126.19
BT5				8000	-177.08		80.8			183.01	0.00			257.90
BT6	1 974		2 007		19.86	2.00	106.9	0.00	77.05	-	-	0.00	0.00	-
BT6				63	11.04		85.3			0.20	-3.00			74.25
BT6				125	10.32		94.0			0.80	5.85			83.70
BT6				250	11.89		99.6			2.01	8.60			87.66
BT6				500	7.18		102.0			3.81	14.00			94.87
BT6				1000	11.94		101.4			7.43	5.00			89.48
BT6				2000	1.16		97.7			19.47	0.00			96.52
BT6				4000	-52.02		90.9			65.84	0.00			142.89
BT6				8000	-231.09		80.8			234.85	0.00			311.90
BT7	2 337		2 365		17.88	2.00	106.9	0.00	78.48	-	-	0.00	0.00	-
BT7				63	9.58		85.3			0.24	-3.00			75.71
BT7				125	8.75		94.0			0.95	5.85			85.27
BT7				250	10.11		99.6			2.37	8.60			89.44
BT7				500	5.07		102.0			4.49	14.00			96.97
BT7				1000	9.19		101.4			8.75	5.00			92.23
BT7				2000	-3.74		97.7			22.94	0.00			101.42
BT7				4000	-65.19		90.9			77.58	0.00			156.06
BT7				8000	-274.41		80.8			276.74	0.00			355.22
Sum					35.95									
Sum				63	52.81									
Sum				125	43.59									

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## DECIBEL - Detailed results

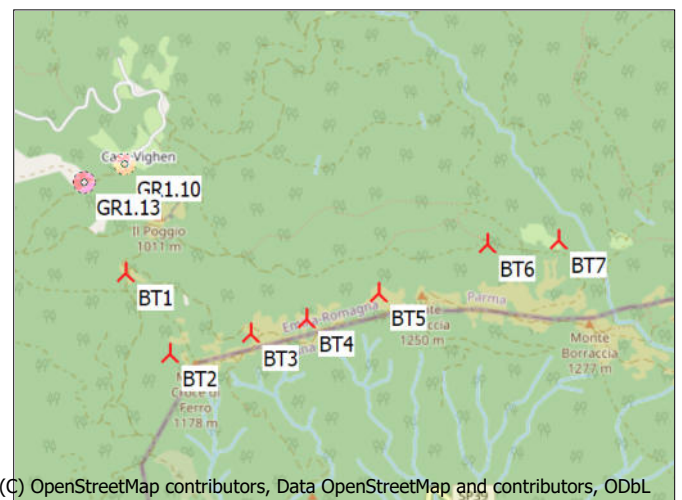
**Calculation:** NOTTURNO **Noise calculation model:** ISO 9613-2 General

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### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
Sum				250	<b>36.96</b>									
Sum				500	<b>27.79</b>									
Sum				1000	<b>31.30</b>									
Sum				2000	<b>26.48</b>									
Sum				4000	<b>4.34</b>									
Sum				8000	<b>-56.62</b>									

- Data undefined due to calculation with octave data



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▲ New WTG

Scale 1:40 000  
■ Noise sensitive area

### Noise sensitive area: GR1.13 Case Vighini

Wind speed: 3.0 m/s

### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT1		521	589		<b>20.71</b>	2.00	93.2	0.00	66.41	-	-	0.00	0.00	-
BT1				63	<b>7.05</b>		70.5			0.06	-3.00			63.47
BT1				125	<b>9.55</b>		79.4			0.24	3.18			69.82
BT1				250	<b>9.61</b>		85.2			0.59	8.60			75.60
BT1				500	<b>6.56</b>		88.1			1.12	14.00			81.53
BT1				1000	<b>14.41</b>		88.0			2.18	5.00			73.59
BT1				2000	<b>12.71</b>		84.8			5.72	0.00			72.12
BT1				4000	<b>-7.07</b>		78.7			19.33	0.00			85.73
BT1				8000	<b>-65.90</b>		69.5			68.94	0.00			135.35
BT2		1 012	1 081		<b>13.38</b>	2.00	93.2	0.00	71.68	-	-	0.00	0.00	-
BT2				63	<b>1.73</b>		70.5			0.11	-3.00			68.79
BT2				125	<b>1.74</b>		79.4			0.43	5.52			77.64
BT2				250	<b>3.85</b>		85.2			1.08	8.60			81.36
BT2				500	<b>0.35</b>		88.1			2.05	14.00			87.73
BT2				1000	<b>7.31</b>		88.0			4.00	5.00			80.68
BT2				2000	<b>2.66</b>		84.8			10.49	0.00			82.17
BT2				4000	<b>-28.49</b>		78.7			35.47	0.00			107.15
BT2				8000	<b>-128.74</b>		69.5			126.51	0.00			198.19
BT3		1 187	1 237		<b>11.72</b>	2.00	93.2	0.00	72.85	-	-	0.00	0.00	-
BT3				63	<b>0.55</b>		70.5			0.12	-3.00			69.97
BT3				125	<b>0.29</b>		79.4			0.49	5.74			79.08
BT3				250	<b>2.52</b>		85.2			1.24	8.60			82.68
BT3				500	<b>-1.11</b>		88.1			2.35	14.00			89.20
BT3				1000	<b>5.57</b>		88.0			4.58	5.00			82.42
BT3				2000	<b>-0.02</b>		84.8			12.00	0.00			84.85
BT3				4000	<b>-34.76</b>		78.7			40.58	0.00			113.42

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## DECIBEL - Detailed results

**Calculation:** NOTTURNO **Noise calculation model:** ISO 9613-2 General

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### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT3				8000	<b>-148.13</b>		69.5			144.73	0.00			217.58
BT4		1 381	1 422		<b>9.99</b>	2.00	93.2	0.00	74.06	-	-	0.00	0.00	-
BT4				63	<b>-0.68</b>		70.5			0.14	-3.00			71.20
BT4				125	<b>-1.07</b>		79.4			0.57	5.82			80.45
BT4				250	<b>1.13</b>		85.2			1.42	8.60			84.08
BT4				500	<b>-2.67</b>		88.1			2.70	14.00			90.76
BT4				1000	<b>3.67</b>		88.0			5.26	5.00			84.32
BT4				2000	<b>-3.02</b>		84.8			13.80	0.00			87.85
BT4				4000	<b>-42.05</b>		78.7			46.65	0.00			120.71
BT4				8000	<b>-171.01</b>		69.5			166.40	0.00			240.46
BT5		1 664	1 714		<b>7.67</b>	2.00	93.2	0.00	75.68	-	-	0.00	0.00	-
BT5				63	<b>-2.34</b>		70.5			0.17	-3.00			72.85
BT5				125	<b>-2.84</b>		79.4			0.69	5.85			82.21
BT5				250	<b>-0.79</b>		85.2			1.71	8.60			86.00
BT5				500	<b>-4.85</b>		88.1			3.26	14.00			92.94
BT5				1000	<b>0.97</b>		88.0			6.34	5.00			87.03
BT5				2000	<b>-7.48</b>		84.8			16.63	0.00			92.31
BT5				4000	<b>-53.26</b>		78.7			56.23	0.00			131.91
BT5				8000	<b>-206.81</b>		69.5			200.59	0.00			276.27
BT6		2 162	2 193		<b>4.60</b>	2.00	93.2	0.00	77.82	-	-	0.00	0.00	-
BT6				63	<b>-4.52</b>		70.5			0.22	-3.00			75.04
BT6				125	<b>-5.17</b>		79.4			0.88	5.85			84.55
BT6				250	<b>-3.41</b>		85.2			2.19	8.60			88.61
BT6				500	<b>-7.90</b>		88.1			4.17	14.00			95.99
BT6				1000	<b>-2.94</b>		88.0			8.11	5.00			90.94
BT6				2000	<b>-14.27</b>		84.8			21.27	0.00			99.10
BT6				4000	<b>-71.10</b>		78.7			71.94	0.00			149.76
BT6				8000	<b>-264.97</b>		69.5			256.60	0.00			334.42
BT7		2 529	2 556		<b>2.69</b>	2.00	93.2	0.00	79.15	-	-	0.00	0.00	-
BT7				63	<b>-5.89</b>		70.5			0.26	-3.00			76.41
BT7				125	<b>-6.65</b>		79.4			1.02	5.85			86.02
BT7				250	<b>-5.10</b>		85.2			2.56	8.60			90.31
BT7				500	<b>-9.92</b>		88.1			4.86	14.00			98.01
BT7				1000	<b>-5.62</b>		88.0			9.46	5.00			93.61
BT7				2000	<b>-19.12</b>		84.8			24.80	0.00			103.95
BT7				4000	<b>-84.35</b>		78.7			83.85	0.00			163.00
BT7				8000	<b>-308.80</b>		69.5			299.10	0.00			378.26
Sum					<b>22.43</b>									
Sum				63	<b>38.09</b>									
Sum				125	<b>29.37</b>									
Sum				250	<b>22.71</b>									
Sum				500	<b>13.96</b>									
Sum				1000	<b>18.12</b>									
Sum				2000	<b>14.27</b>									
Sum				4000	<b>-6.03</b>									
Sum				8000	<b>-62.80</b>									

- Data undefined due to calculation with octave data

Wind speed: 4.0 m/s

### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT1		521	589		<b>21.10</b>	2.00	93.6	0.00	66.41	-	-	0.00	0.00	-
BT1				63	<b>7.83</b>		71.3			0.06	-3.00			63.47
BT1				125	<b>10.25</b>		80.1			0.24	3.18			69.82
BT1				250	<b>10.21</b>		85.8			0.59	8.60			75.60
BT1				500	<b>7.06</b>		88.6			1.12	14.00			81.53
BT1				1000	<b>14.72</b>		88.3			2.18	5.00			73.59
BT1				2000	<b>12.85</b>		85.0			5.72	0.00			72.12
BT1				4000	<b>-7.01</b>		78.7			19.33	0.00			85.73
BT1				8000	<b>-65.94</b>		69.4			68.94	0.00			135.35
BT2		1 012	1 081		<b>13.83</b>	2.00	93.6	0.00	71.68	-	-	0.00	0.00	-
BT2				63	<b>2.50</b>		71.3			0.11	-3.00			68.79

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## DECIBEL - Detailed results

**Calculation:** NOTTURNO **Noise calculation model:** ISO 9613-2 General

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### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT2				125	2.44		80.1			0.43	5.52			77.64
BT2				250	4.45		85.8			1.08	8.60			81.36
BT2				500	0.85		88.6			2.05	14.00			87.73
BT2				1000	7.62		88.3			4.00	5.00			80.68
BT2				2000	2.81		85.0			10.49	0.00			82.17
BT2				4000	-28.42		78.7			35.47	0.00			107.15
BT2				8000	-128.79		69.4			126.51	0.00			198.19
BT3	1 187	1 237			12.19	2.00	93.6	0.00	72.85	-	-	0.00	0.00	-
BT3				63	1.32		71.3			0.12	-3.00			69.97
BT3				125	0.99		80.1			0.49	5.74			79.08
BT3				250	3.12		85.8			1.24	8.60			82.68
BT3				500	-0.61		88.6			2.35	14.00			89.20
BT3				1000	5.88		88.3			4.58	5.00			82.42
BT3				2000	0.13		85.0			12.00	0.00			84.85
BT3				4000	-34.69		78.7			40.58	0.00			113.42
BT3				8000	-148.18		69.4			144.73	0.00			217.58
BT4	1 381	1 422			10.48	2.00	93.6	0.00	74.06	-	-	0.00	0.00	-
BT4				63	0.09		71.3			0.14	-3.00			71.20
BT4				125	-0.37		80.1			0.57	5.82			80.45
BT4				250	1.73		85.8			1.42	8.60			84.08
BT4				500	-2.17		88.6			2.70	14.00			90.76
BT4				1000	3.98		88.3			5.26	5.00			84.32
BT4				2000	-2.88		85.0			13.80	0.00			87.85
BT4				4000	-41.98		78.7			46.65	0.00			120.71
BT4				8000	-171.05		69.4			166.40	0.00			240.46
BT5	1 664	1 714			8.19	2.00	93.6	0.00	75.68	-	-	0.00	0.00	-
BT5				63	-1.56		71.3			0.17	-3.00			72.85
BT5				125	-2.14		80.1			0.69	5.85			82.21
BT5				250	-0.19		85.8			1.71	8.60			86.00
BT5				500	-4.35		88.6			3.26	14.00			92.94
BT5				1000	1.28		88.3			6.34	5.00			87.03
BT5				2000	-7.34		85.0			16.63	0.00			92.31
BT5				4000	-53.19		78.7			56.23	0.00			131.91
BT5				8000	-206.86		69.4			200.59	0.00			276.27
BT6	2 162	2 193			5.16	2.00	93.6	0.00	77.82	-	-	0.00	0.00	-
BT6				63	-3.75		71.3			0.22	-3.00			75.04
BT6				125	-4.47		80.1			0.88	5.85			84.55
BT6				250	-2.81		85.8			2.19	8.60			88.61
BT6				500	-7.40		88.6			4.17	14.00			95.99
BT6				1000	-2.63		88.3			8.11	5.00			90.94
BT6				2000	-14.12		85.0			21.27	0.00			99.10
BT6				4000	-71.03		78.7			71.94	0.00			149.76
BT6				8000	-265.02		69.4			256.60	0.00			334.42
BT7	2 529	2 556			3.26	2.00	93.6	0.00	79.15	-	-	0.00	0.00	-
BT7				63	-5.12		71.3			0.26	-3.00			76.41
BT7				125	-5.95		80.1			1.02	5.85			86.02
BT7				250	-4.50		85.8			2.56	8.60			90.31
BT7				500	-9.42		88.6			4.86	14.00			98.01
BT7				1000	-5.31		88.3			9.46	5.00			93.61
BT7				2000	-18.97		85.0			24.80	0.00			103.95
BT7				4000	-84.28		78.7			83.85	0.00			163.00
BT7				8000	-308.85		69.4			299.10	0.00			378.26
Sum					22.85									
Sum				63	38.86									
Sum				125	30.07									
Sum				250	23.31									
Sum				500	14.46									
Sum				1000	18.43									
Sum				2000	14.41									
Sum				4000	-5.97									
Sum				8000	-62.84									

- Data undefined due to calculation with octave data

## DECIBEL - Detailed results

**Calculation:** NOTTURNO **Noise calculation model:** ISO 9613-2 General

Wind speed: 5.0 m/s

### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT1		521	589		<b>24.02</b>	2.00	96.5	0.00	66.41	-	-	0.00	0.00	-
BT1				63	<b>11.13</b>		74.6			0.06	-3.00			63.47
BT1				125	<b>13.48</b>		83.3			0.24	3.18			69.82
BT1				250	<b>13.33</b>		88.9			0.59	8.60			75.60
BT1				500	<b>10.03</b>		91.6			1.12	14.00			81.53
BT1				1000	<b>17.52</b>		91.1			2.18	5.00			73.59
BT1				2000	<b>15.50</b>		87.6			5.72	0.00			72.12
BT1				4000	<b>-4.60</b>		81.1			19.33	0.00			85.73
BT1				8000	<b>-63.85</b>		71.5			68.94	0.00			135.35
BT2	1 012		1 081		<b>16.79</b>	2.00	96.5	0.00	71.68	-	-	0.00	0.00	-
BT2				63	<b>5.80</b>		74.6			0.11	-3.00			68.79
BT2				125	<b>5.67</b>		83.3			0.43	5.52			77.64
BT2				250	<b>7.57</b>		88.9			1.08	8.60			81.36
BT2				500	<b>3.82</b>		91.6			2.05	14.00			87.73
BT2				1000	<b>10.42</b>		91.1			4.00	5.00			80.68
BT2				2000	<b>5.45</b>		87.6			10.49	0.00			82.17
BT2				4000	<b>-26.01</b>		81.1			35.47	0.00			107.15
BT2				8000	<b>-126.70</b>		71.5			126.51	0.00			198.19
BT3	1 187		1 237		<b>15.17</b>	2.00	96.5	0.00	72.85	-	-	0.00	0.00	-
BT3				63	<b>4.62</b>		74.6			0.12	-3.00			69.97
BT3				125	<b>4.22</b>		83.3			0.49	5.74			79.08
BT3				250	<b>6.25</b>		88.9			1.24	8.60			82.68
BT3				500	<b>2.35</b>		91.6			2.35	14.00			89.20
BT3				1000	<b>8.68</b>		91.1			4.58	5.00			82.42
BT3				2000	<b>2.78</b>		87.6			12.00	0.00			84.85
BT3				4000	<b>-32.28</b>		81.1			40.58	0.00			113.42
BT3				8000	<b>-146.09</b>		71.5			144.73	0.00			217.58
BT4	1 381		1 422		<b>13.49</b>	2.00	96.5	0.00	74.06	-	-	0.00	0.00	-
BT4				63	<b>3.39</b>		74.6			0.14	-3.00			71.20
BT4				125	<b>2.85</b>		83.3			0.57	5.82			80.45
BT4				250	<b>4.85</b>		88.9			1.42	8.60			84.08
BT4				500	<b>0.79</b>		91.6			2.70	14.00			90.76
BT4				1000	<b>6.78</b>		91.1			5.26	5.00			84.32
BT4				2000	<b>-0.23</b>		87.6			13.80	0.00			87.85
BT4				4000	<b>-39.57</b>		81.1			46.65	0.00			120.71
BT4				8000	<b>-168.97</b>		71.5			166.40	0.00			240.46
BT5	1 664		1 714		<b>11.22</b>	2.00	96.5	0.00	75.68	-	-	0.00	0.00	-
BT5				63	<b>1.74</b>		74.6			0.17	-3.00			72.85
BT5				125	<b>1.09</b>		83.3			0.69	5.85			82.21
BT5				250	<b>2.93</b>		88.9			1.71	8.60			86.00
BT5				500	<b>-1.39</b>		91.6			3.26	14.00			92.94
BT5				1000	<b>4.08</b>		91.1			6.34	5.00			87.03
BT5				2000	<b>-4.69</b>		87.6			16.63	0.00			92.31
BT5				4000	<b>-50.78</b>		81.1			56.23	0.00			131.91
BT5				8000	<b>-204.77</b>		71.5			200.59	0.00			276.27
BT6	2 162		2 193		<b>8.23</b>	2.00	96.5	0.00	77.82	-	-	0.00	0.00	-
BT6				63	<b>-0.45</b>		74.6			0.22	-3.00			75.04
BT6				125	<b>-1.24</b>		83.3			0.88	5.85			84.55
BT6				250	<b>0.32</b>		88.9			2.19	8.60			88.61
BT6				500	<b>-4.44</b>		91.6			4.17	14.00			95.99
BT6				1000	<b>0.17</b>		91.1			8.11	5.00			90.94
BT6				2000	<b>-11.47</b>		87.6			21.27	0.00			99.10
BT6				4000	<b>-68.62</b>		81.1			71.94	0.00			149.76
BT6				8000	<b>-262.93</b>		71.5			256.60	0.00			334.42
BT7	2 529		2 556		<b>6.36</b>	2.00	96.5	0.00	79.15	-	-	0.00	0.00	-
BT7				63	<b>-1.82</b>		74.6			0.26	-3.00			76.41
BT7				125	<b>-2.72</b>		83.3			1.02	5.85			86.02
BT7				250	<b>-1.38</b>		88.9			2.56	8.60			90.31
BT7				500	<b>-6.46</b>		91.6			4.86	14.00			98.01
BT7				1000	<b>-2.51</b>		91.1			9.46	5.00			93.61
BT7				2000	<b>-16.33</b>		87.6			24.80	0.00			103.95
BT7				4000	<b>-81.87</b>		81.1			83.85	0.00			163.00
BT7				8000	<b>-306.76</b>		71.5			299.10	0.00			378.26

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## DECIBEL - Detailed results

**Calculation:** NOTTURNO **Noise calculation model:** ISO 9613-2 General

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### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
Sum					<b>25.79</b>									
Sum				63	<b>42.16</b>									
Sum				125	<b>33.30</b>									
Sum				250	<b>26.43</b>									
Sum				500	<b>17.43</b>									
Sum				1000	<b>21.23</b>									
Sum				2000	<b>17.06</b>									
Sum				4000	<b>-3.56</b>									
Sum				8000	<b>-60.75</b>									

- Data undefined due to calculation with octave data

Wind speed: 6.0 m/s

### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT1		521	589		<b>27.52</b>	2.00	100.0	0.00	66.41	-	-	0.00	0.00	-
BT1				63	<b>14.76</b>		78.2			0.06	-3.00			63.47
BT1				125	<b>17.10</b>		86.9			0.24	3.18			69.82
BT1				250	<b>16.93</b>		92.5			0.59	8.60			75.60
BT1				500	<b>13.56</b>		95.1			1.12	14.00			81.53
BT1				1000	<b>20.99</b>		94.6			2.18	5.00			73.59
BT1				2000	<b>18.88</b>		91.0			5.72	0.00			72.12
BT1				4000	<b>-1.40</b>		84.3			19.33	0.00			85.73
BT1				8000	<b>-60.79</b>		74.6			68.94	0.00			135.35
BT2	1 012		1 081		<b>20.32</b>	2.00	100.0	0.00	71.68	-	-	0.00	0.00	-
BT2				63	<b>9.44</b>		78.2			0.11	-3.00			68.79
BT2				125	<b>9.29</b>		86.9			0.43	5.52			77.64
BT2				250	<b>11.17</b>		92.5			1.08	8.60			81.36
BT2				500	<b>7.35</b>		95.1			2.05	14.00			87.73
BT2				1000	<b>13.90</b>		94.6			4.00	5.00			80.68
BT2				2000	<b>8.83</b>		91.0			10.49	0.00			82.17
BT2				4000	<b>-22.81</b>		84.3			35.47	0.00			107.15
BT2				8000	<b>-123.63</b>		74.6			126.51	0.00			198.19
BT3	1 187		1 237		<b>18.71</b>	2.00	100.0	0.00	72.85	-	-	0.00	0.00	-
BT3				63	<b>8.26</b>		78.2			0.12	-3.00			69.97
BT3				125	<b>7.84</b>		86.9			0.49	5.74			79.08
BT3				250	<b>9.85</b>		92.5			1.24	8.60			82.68
BT3				500	<b>5.88</b>		95.1			2.35	14.00			89.20
BT3				1000	<b>12.15</b>		94.6			4.58	5.00			82.42
BT3				2000	<b>6.15</b>		91.0			12.00	0.00			84.85
BT3				4000	<b>-29.08</b>		84.3			40.58	0.00			113.42
BT3				8000	<b>-143.02</b>		74.6			144.73	0.00			217.58
BT4	1 381		1 422		<b>17.03</b>	2.00	100.0	0.00	74.06	-	-	0.00	0.00	-
BT4				63	<b>7.03</b>		78.2			0.14	-3.00			71.20
BT4				125	<b>6.47</b>		86.9			0.57	5.82			80.45
BT4				250	<b>8.45</b>		92.5			1.42	8.60			84.08
BT4				500	<b>4.32</b>		95.1			2.70	14.00			90.76
BT4				1000	<b>10.25</b>		94.6			5.26	5.00			84.32
BT4				2000	<b>3.15</b>		91.0			13.80	0.00			87.85
BT4				4000	<b>-36.37</b>		84.3			46.65	0.00			120.71
BT4				8000	<b>-165.90</b>		74.6			166.40	0.00			240.46
BT5	1 664		1 714		<b>14.78</b>	2.00	100.0	0.00	75.68	-	-	0.00	0.00	-
BT5				63	<b>5.38</b>		78.2			0.17	-3.00			72.85
BT5				125	<b>4.71</b>		86.9			0.69	5.85			82.21
BT5				250	<b>6.53</b>		92.5			1.71	8.60			86.00
BT5				500	<b>2.14</b>		95.1			3.26	14.00			92.94
BT5				1000	<b>7.55</b>		94.6			6.34	5.00			87.03
BT5				2000	<b>-1.31</b>		91.0			16.63	0.00			92.31
BT5				4000	<b>-47.58</b>		84.3			56.23	0.00			131.91
BT5				8000	<b>-201.71</b>		74.6			200.59	0.00			276.27
BT6	2 162		2 193		<b>11.80</b>	2.00	100.0	0.00	77.82	-	-	0.00	0.00	-
BT6				63	<b>3.19</b>		78.2			0.22	-3.00			75.04
BT6				125	<b>2.37</b>		86.9			0.88	5.85			84.55

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## DECIBEL - Detailed results

**Calculation:** NOTTURNO **Noise calculation model:** ISO 9613-2 General

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### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT6				250	3.92		92.5			2.19	8.60			88.61
BT6				500	-0.91		95.1			4.17	14.00			95.99
BT6				1000	3.64		94.6			8.11	5.00			90.94
BT6				2000	-8.09		91.0			21.27	0.00			99.10
BT6				4000	-65.42		84.3			71.94	0.00			149.76
BT6				8000	-259.87		74.6			256.60	0.00			334.42
BT7		2 529	2 556		9.94	2.00	100.0	0.00	79.15	-	-	0.00	0.00	-
BT7				63	1.82		78.2			0.26	-3.00			76.41
BT7				125	0.90		86.9			1.02	5.85			86.02
BT7				250	2.22		92.5			2.56	8.60			90.31
BT7				500	-2.93		95.1			4.86	14.00			98.01
BT7				1000	0.96		94.6			9.46	5.00			93.61
BT7				2000	-12.95		91.0			24.80	0.00			103.95
BT7				4000	-78.67		84.3			83.85	0.00			163.00
BT7				8000	-303.70		74.6			299.10	0.00			378.26
Sum					29.31									
Sum				63	45.80									
Sum				125	36.92									
Sum				250	30.03									
Sum				500	20.96									
Sum				1000	24.70									
Sum				2000	20.44									
Sum				4000	-0.36									
Sum				8000	-57.69									

- Data undefined due to calculation with octave data

Wind speed: 7.0 m/s

### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT1		521	589		30.72	2.00	103.2	0.00	66.41	-	-	0.00	0.00	-
BT1				63	18.03		81.5			0.06	-3.00			63.47
BT1				125	20.38		90.2			0.24	3.18			69.82
BT1				250	20.19		95.8			0.59	8.60			75.60
BT1				500	16.76		98.3			1.12	14.00			81.53
BT1				1000	24.19		97.8			2.18	5.00			73.59
BT1				2000	21.96		94.1			5.72	0.00			72.12
BT1				4000	1.65		87.4			19.33	0.00			85.73
BT1				8000	-57.84		77.5			68.94	0.00			135.35
BT2		1 012	1 081		23.54	2.00	103.2	0.00	71.68	-	-	0.00	0.00	-
BT2				63	12.70		81.5			0.11	-3.00			68.79
BT2				125	12.57		90.2			0.43	5.52			77.64
BT2				250	14.43		95.8			1.08	8.60			81.36
BT2				500	10.55		98.3			2.05	14.00			87.73
BT2				1000	17.10		97.8			4.00	5.00			80.68
BT2				2000	11.91		94.1			10.49	0.00			82.17
BT2				4000	-19.77		87.4			35.47	0.00			107.15
BT2				8000	-120.68		77.5			126.51	0.00			198.19
BT3		1 187	1 237		21.93	2.00	103.2	0.00	72.85	-	-	0.00	0.00	-
BT3				63	11.52		81.5			0.12	-3.00			69.97
BT3				125	11.12		90.2			0.49	5.74			79.08
BT3				250	13.10		95.8			1.24	8.60			82.68
BT3				500	9.08		98.3			2.35	14.00			89.20
BT3				1000	15.35		97.8			4.58	5.00			82.42
BT3				2000	9.23		94.1			12.00	0.00			84.85
BT3				4000	-26.04		87.4			40.58	0.00			113.42
BT3				8000	-140.07		77.5			144.73	0.00			217.58
BT4		1 381	1 422		20.26	2.00	103.2	0.00	74.06	-	-	0.00	0.00	-
BT4				63	10.29		81.5			0.14	-3.00			71.20
BT4				125	9.75		90.2			0.57	5.82			80.45
BT4				250	11.70		95.8			1.42	8.60			84.08
BT4				500	7.52		98.3			2.70	14.00			90.76
BT4				1000	13.45		97.8			5.26	5.00			84.32

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## DECIBEL - Detailed results

**Calculation:** NOTTURNO **Noise calculation model:** ISO 9613-2 General

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### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT4				2000	6.23		94.1			13.80	0.00			87.85
BT4				4000	-33.33		87.4			46.65	0.00			120.71
BT4				8000	-162.95		77.5			166.40	0.00			240.46
BT5		1 664	1 714		18.01	2.00	103.2	0.00	75.68	-	-	0.00	0.00	-
BT5				63	8.64		81.5			0.17	-3.00			72.85
BT5				125	7.99		90.2			0.69	5.85			82.21
BT5				250	9.79		95.8			1.71	8.60			86.00
BT5				500	5.34		98.3			3.26	14.00			92.94
BT5				1000	10.75		97.8			6.34	5.00			87.03
BT5				2000	1.77		94.1			16.63	0.00			92.31
BT5				4000	-44.54		87.4			56.23	0.00			131.91
BT5				8000	-198.76		77.5			200.59	0.00			276.27
BT6		2 162	2 193		15.04	2.00	103.2	0.00	77.82	-	-	0.00	0.00	-
BT6				63	6.45		81.5			0.22	-3.00			75.04
BT6				125	5.66		90.2			0.88	5.85			84.55
BT6				250	7.17		95.8			2.19	8.60			88.61
BT6				500	2.29		98.3			4.17	14.00			95.99
BT6				1000	6.84		97.8			8.11	5.00			90.94
BT6				2000	-5.02		94.1			21.27	0.00			99.10
BT6				4000	-62.38		87.4			71.94	0.00			149.76
BT6				8000	-256.91		77.5			256.60	0.00			334.42
BT7		2 529	2 556		13.19	2.00	103.2	0.00	79.15	-	-	0.00	0.00	-
BT7				63	5.08		81.5			0.26	-3.00			76.41
BT7				125	4.18		90.2			1.02	5.85			86.02
BT7				250	5.48		95.8			2.56	8.60			90.31
BT7				500	0.27		98.3			4.86	14.00			98.01
BT7				1000	4.16		97.8			9.46	5.00			93.61
BT7				2000	-9.87		94.1			24.80	0.00			103.95
BT7				4000	-75.62		87.4			83.85	0.00			163.00
BT7				8000	-300.75		77.5			299.10	0.00			378.26
Sum					32.52									
Sum				63	49.06									
Sum				125	40.20									
Sum				250	33.29									
Sum				500	24.16									
Sum				1000	27.90									
Sum				2000	23.52									
Sum				4000	2.69									
Sum				8000	-54.74									

- Data undefined due to calculation with octave data

Wind speed: 8.0 m/s

### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT1		521	589		33.52	2.00	106.0	0.00	66.41	-	-	0.00	0.00	-
BT1				63	20.93		84.4			0.06	-3.00			63.47
BT1				125	23.28		93.1			0.24	3.18			69.82
BT1				250	23.06		98.7			0.59	8.60			75.60
BT1				500	19.62		101.1			1.12	14.00			81.53
BT1				1000	26.93		100.5			2.18	5.00			73.59
BT1				2000	24.66		96.8			5.72	0.00			72.12
BT1				4000	4.25		90.0			19.33	0.00			85.73
BT1				8000	-55.35		80.0			68.94	0.00			135.35
BT2		1 012	1 081		26.35	2.00	106.0	0.00	71.68	-	-	0.00	0.00	-
BT2				63	15.60		84.4			0.11	-3.00			68.79
BT2				125	15.47		93.1			0.43	5.52			77.64
BT2				250	17.29		98.7			1.08	8.60			81.36
BT2				500	13.41		101.1			2.05	14.00			87.73
BT2				1000	19.83		100.5			4.00	5.00			80.68
BT2				2000	14.61		96.8			10.49	0.00			82.17
BT2				4000	-17.17		90.0			35.47	0.00			107.15
BT2				8000	-118.19		80.0			126.51	0.00			198.19

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## DECIBEL - Detailed results

**Calculation:** NOTTURNO **Noise calculation model:** ISO 9613-2 General

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### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT3		1 187	1 237	63	24.74	2.00	106.0	0.00	72.85	-	-	0.00	0.00	-
BT3				125	14.42		84.4			0.12	-3.00			69.97
BT3				250	14.02		93.1			0.49	5.74			79.08
BT3				500	15.97		98.7			1.24	8.60			82.68
BT3				1000	11.95		101.1			2.35	14.00			89.20
BT3				2000	18.09		100.5			4.58	5.00			82.42
BT3				4000	11.93		96.8			12.00	0.00			84.85
BT3				8000	-23.44		90.0			40.58	0.00			113.42
BT3					-137.58		80.0			144.73	0.00			217.58
BT4		1 381	1 422	63	23.08	2.00	106.0	0.00	74.06	-	-	0.00	0.00	-
BT4				125	13.19		84.4			0.14	-3.00			71.20
BT4				250	12.65		93.1			0.57	5.82			80.45
BT4				500	14.57		98.7			1.42	8.60			84.08
BT4				1000	10.38		101.1			2.70	14.00			90.76
BT4				2000	16.19		100.5			5.26	5.00			84.32
BT4				4000	8.93		96.8			13.80	0.00			87.85
BT4				8000	-30.73		90.0			46.65	0.00			120.71
BT4					-160.46		80.0			166.40	0.00			240.46
BT5		1 664	1 714	63	20.85	2.00	106.0	0.00	75.68	-	-	0.00	0.00	-
BT5				125	11.54		84.4			0.17	-3.00			72.85
BT5				250	10.89		93.1			0.69	5.85			82.21
BT5				500	12.66		98.7			1.71	8.60			86.00
BT5				1000	8.21		101.1			3.26	14.00			92.94
BT5				2000	13.49		100.5			6.34	5.00			87.03
BT5				4000	4.47		96.8			16.63	0.00			92.31
BT5				8000	-41.94		90.0			56.23	0.00			131.91
BT5					-196.27		80.0			200.59	0.00			276.27
BT6		2 162	2 193	63	17.89	2.00	106.0	0.00	77.82	-	-	0.00	0.00	-
BT6				125	9.35		84.4			0.22	-3.00			75.04
BT6				250	8.56		93.1			0.88	5.85			84.55
BT6				500	10.04		98.7			2.19	8.60			88.61
BT6				1000	5.16		101.1			4.17	14.00			95.99
BT6				2000	9.58		100.5			8.11	5.00			90.94
BT6				4000	-2.32		96.8			21.27	0.00			99.10
BT6				8000	-59.78		90.0			71.94	0.00			149.76
BT6					-254.42		80.0			256.60	0.00			334.42
BT7		2 529	2 556	63	16.04	2.00	106.0	0.00	79.15	-	-	0.00	0.00	-
BT7				125	7.98		84.4			0.26	-3.00			76.41
BT7				250	7.08		93.1			1.02	5.85			86.02
BT7				500	8.34		98.7			2.56	8.60			90.31
BT7				1000	3.14		101.1			4.86	14.00			98.01
BT7				2000	6.90		100.5			9.46	5.00			93.61
BT7				4000	-7.17		96.8			24.80	0.00			103.95
BT7				8000	-73.02		90.0			83.85	0.00			163.00
BT7					-298.26		80.0			299.10	0.00			378.26
Sum					35.32									
Sum				63	51.96									
Sum				125	43.10									
Sum				250	36.15									
Sum				500	27.02									
Sum				1000	30.64									
Sum				2000	26.22									
Sum				4000	5.29									
Sum				8000	-52.25									

- Data undefined due to calculation with octave data

Wind speed: 9.0 m/s

### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT1		521	589	63	34.42	2.00	106.9	0.00	66.41	-	-	0.00	0.00	-
BT1				125	21.93		85.4			0.06	-3.00			63.47
BT1					24.23		94.1			0.24	3.18			69.82

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## DECIBEL - Detailed results

**Calculation:** NOTTURNO **Noise calculation model:** ISO 9613-2 General

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### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT1				250	23.99		99.6			0.59	8.60			75.60
BT1				500	20.52		102.0			1.12	14.00			81.53
BT1				1000	27.83		101.4			2.18	5.00			73.59
BT1				2000	25.46		97.6			5.72	0.00			72.12
BT1				4000	5.03		90.8			19.33	0.00			85.73
BT1				8000	-54.67		80.7			68.94	0.00			135.35
BT2	1 012	1 081			27.27	2.00	106.9	0.00	71.68	-	-	0.00	0.00	-
BT2				63	16.60		85.4			0.11	-3.00			68.79
BT2				125	16.42		94.1			0.43	5.52			77.64
BT2				250	18.23		99.6			1.08	8.60			81.36
BT2				500	14.31		102.0			2.05	14.00			87.73
BT2				1000	20.73		101.4			4.00	5.00			80.68
BT2				2000	15.41		97.6			10.49	0.00			82.17
BT2				4000	-16.38		90.8			35.47	0.00			107.15
BT2				8000	-117.51		80.7			126.51	0.00			198.19
BT3	1 187	1 237			25.66	2.00	106.9	0.00	72.85	-	-	0.00	0.00	-
BT3				63	15.42		85.4			0.12	-3.00			69.97
BT3				125	14.97		94.1			0.49	5.74			79.08
BT3				250	16.90		99.6			1.24	8.60			82.68
BT3				500	12.85		102.0			2.35	14.00			89.20
BT3				1000	18.99		101.4			4.58	5.00			82.42
BT3				2000	12.73		97.6			12.00	0.00			84.85
BT3				4000	-22.66		90.8			40.58	0.00			113.42
BT3				8000	-136.91		80.7			144.73	0.00			217.58
BT4	1 381	1 422			24.01	2.00	106.9	0.00	74.06	-	-	0.00	0.00	-
BT4				63	14.19		85.4			0.14	-3.00			71.20
BT4				125	13.60		94.1			0.57	5.82			80.45
BT4				250	15.50		99.6			1.42	8.60			84.08
BT4				500	11.28		102.0			2.70	14.00			90.76
BT4				1000	17.09		101.4			5.26	5.00			84.32
BT4				2000	9.73		97.6			13.80	0.00			87.85
BT4				4000	-29.94		90.8			46.65	0.00			120.71
BT4				8000	-159.78		80.7			166.40	0.00			240.46
BT5	1 664	1 714			21.78	2.00	106.9	0.00	75.68	-	-	0.00	0.00	-
BT5				63	12.54		85.4			0.17	-3.00			72.85
BT5				125	11.84		94.1			0.69	5.85			82.21
BT5				250	13.59		99.6			1.71	8.60			86.00
BT5				500	9.11		102.0			3.26	14.00			92.94
BT5				1000	14.39		101.4			6.34	5.00			87.03
BT5				2000	5.27		97.6			16.63	0.00			92.31
BT5				4000	-41.15		90.8			56.23	0.00			131.91
BT5				8000	-195.59		80.7			200.59	0.00			276.27
BT6	2 162	2 193			18.83	2.00	106.9	0.00	77.82	-	-	0.00	0.00	-
BT6				63	10.35		85.4			0.22	-3.00			75.04
BT6				125	9.50		94.1			0.88	5.85			84.55
BT6				250	10.97		99.6			2.19	8.60			88.61
BT6				500	6.06		102.0			4.17	14.00			95.99
BT6				1000	10.48		101.4			8.11	5.00			90.94
BT6				2000	-1.52		97.6			21.27	0.00			99.10
BT6				4000	-58.99		90.8			71.94	0.00			149.76
BT6				8000	-253.75		80.7			256.60	0.00			334.42
BT7	2 529	2 556			16.99	2.00	106.9	0.00	79.15	-	-	0.00	0.00	-
BT7				63	8.98		85.4			0.26	-3.00			76.41
BT7				125	8.03		94.1			1.02	5.85			86.02
BT7				250	9.28		99.6			2.56	8.60			90.31
BT7				500	4.04		102.0			4.86	14.00			98.01
BT7				1000	7.80		101.4			9.46	5.00			93.61
BT7				2000	-6.37		97.6			24.80	0.00			103.95
BT7				4000	-72.24		90.8			83.85	0.00			163.00
BT7				8000	-297.58		80.7			299.10	0.00			378.26
Sum					36.23									
Sum				63	52.96									
Sum				125	44.05									

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## DECIBEL - Detailed results

**Calculation:** NOTTURNO **Noise calculation model:** ISO 9613-2 General

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### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
Sum				250	<b>37.09</b>									
Sum				500	<b>27.92</b>									
Sum				1000	<b>31.54</b>									
Sum				2000	<b>27.02</b>									
Sum				4000	<b>6.07</b>									
Sum				8000	<b>-51.57</b>									

- Data undefined due to calculation with octave data

Wind speed: 10.0 m/s

### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT1		521	589	63	<b>34.42</b>	2.00	106.9	0.00	66.41	-	-	0.00	0.00	-
BT1				125	<b>21.83</b>		85.3			0.06	-3.00			63.47
BT1				250	<b>24.20</b>		94.0			0.24	3.18			69.82
BT1				500	<b>23.96</b>		99.6			0.59	8.60			75.60
BT1				1000	<b>20.52</b>		102.0			1.12	14.00			81.53
BT1				2000	<b>27.83</b>		101.4			2.18	5.00			73.59
BT1				4000	<b>25.56</b>		97.7			5.72	0.00			72.12
BT1				8000	<b>5.13</b>		90.9			19.33	0.00			85.73
BT1					<b>-54.54</b>		80.8			68.94	0.00			135.35
BT2	1 012		1 081	63	<b>27.25</b>	2.00	106.9	0.00	71.68	-	-	0.00	0.00	-
BT2				125	<b>16.50</b>		85.3			0.11	-3.00			68.79
BT2				250	<b>16.39</b>		94.0			0.43	5.52			77.64
BT2				500	<b>18.19</b>		99.6			1.08	8.60			81.36
BT2				1000	<b>14.31</b>		102.0			2.05	14.00			87.73
BT2				2000	<b>20.73</b>		101.4			4.00	5.00			80.68
BT2				4000	<b>15.51</b>		97.7			10.49	0.00			82.17
BT2				8000	<b>-16.28</b>		90.9			35.47	0.00			107.15
BT2					<b>-117.38</b>		80.8			126.51	0.00			198.19
BT3	1 187		1 237	63	<b>25.65</b>	2.00	106.9	0.00	72.85	-	-	0.00	0.00	-
BT3				125	<b>15.32</b>		85.3			0.12	-3.00			69.97
BT3				250	<b>14.94</b>		94.0			0.49	5.74			79.08
BT3				500	<b>16.87</b>		99.6			1.24	8.60			82.68
BT3				1000	<b>12.85</b>		102.0			2.35	14.00			89.20
BT3				2000	<b>18.99</b>		101.4			4.58	5.00			82.42
BT3				4000	<b>12.83</b>		97.7			12.00	0.00			84.85
BT3				8000	<b>-22.56</b>		90.9			40.58	0.00			113.42
BT3					<b>-136.77</b>		80.8			144.73	0.00			217.58
BT4	1 381		1 422	63	<b>23.98</b>	2.00	106.9	0.00	74.06	-	-	0.00	0.00	-
BT4				125	<b>14.09</b>		85.3			0.14	-3.00			71.20
BT4				250	<b>13.57</b>		94.0			0.57	5.82			80.45
BT4				500	<b>15.47</b>		99.6			1.42	8.60			84.08
BT4				1000	<b>11.28</b>		102.0			2.70	14.00			90.76
BT4				2000	<b>17.09</b>		101.4			5.26	5.00			84.32
BT4				4000	<b>9.83</b>		97.7			13.80	0.00			87.85
BT4				8000	<b>-29.84</b>		90.9			46.65	0.00			120.71
BT4					<b>-159.65</b>		80.8			166.40	0.00			240.46
BT5	1 664		1 714	63	<b>21.75</b>	2.00	106.9	0.00	75.68	-	-	0.00	0.00	-
BT5				125	<b>12.44</b>		85.3			0.17	-3.00			72.85
BT5				250	<b>11.81</b>		94.0			0.69	5.85			82.21
BT5				500	<b>13.56</b>		99.6			1.71	8.60			86.00
BT5				1000	<b>9.11</b>		102.0			3.26	14.00			92.94
BT5				2000	<b>14.39</b>		101.4			6.34	5.00			87.03
BT5				4000	<b>5.37</b>		97.7			16.63	0.00			92.31
BT5				8000	<b>-41.05</b>		90.9			56.23	0.00			131.91
BT5					<b>-195.46</b>		80.8			200.59	0.00			276.27
BT6	2 162		2 193	63	<b>18.79</b>	2.00	106.9	0.00	77.82	-	-	0.00	0.00	-
BT6				125	<b>10.25</b>		85.3			0.22	-3.00			75.04
BT6				250	<b>9.47</b>		94.0			0.88	5.85			84.55
BT6				500	<b>10.94</b>		99.6			2.19	8.60			88.61
BT6				1000	<b>6.06</b>		102.0			4.17	14.00			95.99
BT6					<b>10.48</b>		101.4			8.11	5.00			90.94

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## DECIBEL - Detailed results

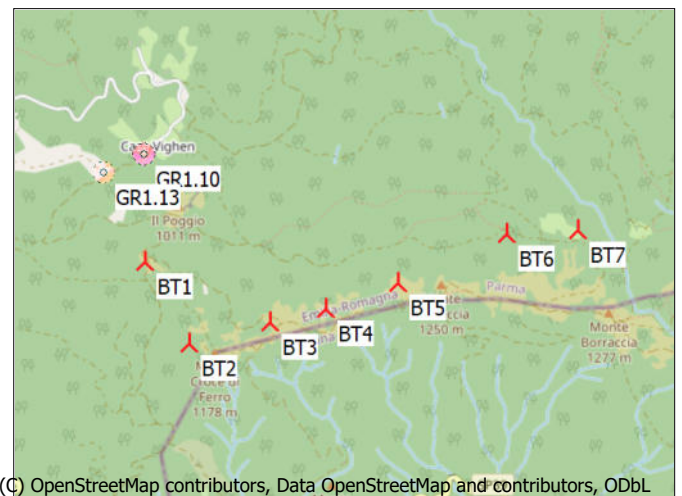
**Calculation:** NOTTURNO **Noise calculation model:** ISO 9613-2 General

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### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT6				2000	-1.42		97.7			21.27	0.00			99.10
BT6				4000	-58.89		90.9			71.94	0.00			149.76
BT6				8000	-253.61		80.8			256.60	0.00			334.42
BT7		2 529	2 556		16.95	2.00	106.9	0.00	79.15	-	-	0.00	0.00	-
BT7				63	8.88		85.3			0.26	-3.00			76.41
BT7				125	8.00		94.0			1.02	5.85			86.02
BT7				250	9.24		99.6			2.56	8.60			90.31
BT7				500	4.04		102.0			4.86	14.00			98.01
BT7				1000	7.80		101.4			9.46	5.00			93.61
BT7				2000	-6.27		97.7			24.80	0.00			103.95
BT7				4000	-72.14		90.9			83.85	0.00			163.00
BT7				8000	-297.45		80.8			299.10	0.00			378.26
Sum					36.22									
Sum				63	52.86									
Sum				125	44.02									
Sum				250	37.05									
Sum				500	27.92									
Sum				1000	31.54									
Sum				2000	27.12									
Sum				4000	6.17									
Sum				8000	-51.44									

- Data undefined due to calculation with octave data



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Scale 1:40 000

New WTG

Noise sensitive area

### Noise sensitive area: GR2.101 Valdena

Wind speed: 3.0 m/s

### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT1		2 614	2 662		2.18	2.00	93.2	0.00	79.51	-	-	0.00	0.00	-
BT1				63	-6.25		70.5			0.27	-3.00			76.77
BT1				125	-7.04		79.4			1.06	5.85			86.42
BT1				250	-5.56		85.2			2.66	8.60			90.77
BT1				500	-10.48		88.1			5.06	14.00			98.56
BT1				1000	-6.36		88.0			9.85	5.00			94.36
BT1				2000	-20.50		84.8			25.82	0.00			105.33
BT1				4000	-88.17		78.7			87.32	0.00			166.83
BT1				8000	-321.54		69.5			311.49	0.00			390.99
BT2		2 552	2 624		2.36	2.00	93.2	0.00	79.38	-	-	0.00	0.00	-
BT2				63	-6.12		70.5			0.26	-3.00			76.64

To be continued on next page...



## DECIBEL - Detailed results

**Calculation:** NOTTURNO **Noise calculation model:** ISO 9613-2 General

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### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT2				125	-6.90		79.4			1.05	5.85			86.28
BT2				250	-5.40		85.2			2.62	8.60			90.60
BT2				500	-10.28		88.1			4.99	14.00			98.37
BT2				1000	-6.09		88.0			9.71	5.00			94.09
BT2				2000	-20.00		84.8			25.45	0.00			104.83
BT2				4000	-86.79		78.7			86.07	0.00			165.45
BT2				8000	-316.95		69.5			307.03	0.00			386.41
BT3	2 981	3 036			0.54	2.00	93.2	0.00	80.65	-	-	0.00	0.00	-
BT3				63	-7.43		70.5			0.30	-3.00			77.95
BT3				125	-8.33		79.4			1.21	5.85			87.71
BT3				250	-7.07		85.2			3.04	8.60			92.28
BT3				500	-12.33		88.1			5.77	14.00			100.41
BT3				1000	-8.88		88.0			11.23	5.00			96.88
BT3				2000	-25.27		84.8			29.45	0.00			110.10
BT3				4000	-101.57		78.7			99.58	0.00			180.23
BT3				8000	-366.41		69.5			355.21	0.00			435.86
BT4	3 278	3 327			-0.60	2.00	93.2	0.00	81.44	-	-	0.00	0.00	-
BT4				63	-8.26		70.5			0.33	-3.00			78.77
BT4				125	-9.25		79.4			1.33	5.85			88.62
BT4				250	-8.16		85.2			3.33	8.60			93.37
BT4				500	-13.68		88.1			6.32	14.00			101.76
BT4				1000	-10.76		88.0			12.31	5.00			98.75
BT4				2000	-28.89		84.8			32.28	0.00			113.72
BT4				4000	-111.92		78.7			109.14	0.00			190.58
BT4				8000	-401.29		69.5			389.30	0.00			470.74
BT5	3 680	3 736			-1.96	2.00	93.2	0.00	82.45	-	-	0.00	0.00	-
BT5				63	-9.04		70.5			0.37	-3.26			79.56
BT5				125	-10.42		79.4			1.49	5.85			89.79
BT5				250	-9.58		85.2			3.74	8.60			94.78
BT5				500	-15.46		88.1			7.10	14.00			103.54
BT5				1000	-13.27		88.0			13.82	5.00			101.27
BT5				2000	-33.85		84.8			36.23	0.00			118.68
BT5				4000	-126.31		78.7			122.52	0.00			204.97
BT5				8000	-450.05		69.5			437.05	0.00			519.50
BT6	4 313	4 354			-3.70	2.00	93.2	0.00	83.78	-	-	0.00	0.00	-
BT6				63	-10.03		70.5			0.44	-3.66			80.55
BT6				125	-11.99		79.4			1.74	5.85			91.37
BT6				250	-11.52		85.2			4.35	8.60			96.73
BT6				500	-17.96		88.1			8.27	14.00			106.05
BT6				1000	-16.89		88.0			16.11	5.00			104.89
BT6				2000	-41.18		84.8			42.23	0.00			126.01
BT6				4000	-147.93		78.7			142.81	0.00			226.59
BT6				8000	-523.73		69.5			509.41	0.00			593.19
BT7	4 661	4 700			-4.55	2.00	93.2	0.00	84.44	-	-	0.00	0.00	-
BT7				63	-10.56		70.5			0.47	-3.84			81.07
BT7				125	-12.79		79.4			1.88	5.85			92.17
BT7				250	-12.53		85.2			4.70	8.60			97.74
BT7				500	-19.28		88.1			8.93	14.00			107.37
BT7				1000	-18.83		88.0			17.39	5.00			106.83
BT7				2000	-45.20		84.8			45.59	0.00			130.03
BT7				4000	-159.93		78.7			154.14	0.00			238.59
BT7				8000	-564.83		69.5			549.85	0.00			634.29
Sum					8.32									
Sum				63	28.70									
Sum				125	17.51									
Sum				250	11.21									
Sum				500	0.53									
Sum				1000	0.87									
Sum				2000	-15.45									
Sum				4000	-83.33									
Sum				8000	-312.56									

- Data undefined due to calculation with octave data

## DECIBEL - Detailed results

**Calculation:** NOTTURNO **Noise calculation model:** ISO 9613-2 General

Wind speed: 4.0 m/s

### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT1		2 614	2 662		<b>2.76</b>	2.00	93.6	0.00	79.51	-	-	0.00	0.00	-
BT1				63	<b>-5.48</b>		71.3			0.27	-3.00			76.77
BT1				125	<b>-6.34</b>		80.1			1.06	5.85			86.42
BT1				250	<b>-4.96</b>		85.8			2.66	8.60			90.77
BT1				500	<b>-9.98</b>		88.6			5.06	14.00			98.56
BT1				1000	<b>-6.05</b>		88.3			9.85	5.00			94.36
BT1				2000	<b>-20.35</b>		85.0			25.82	0.00			105.33
BT1				4000	<b>-88.10</b>		78.7			87.32	0.00			166.83
BT1				8000	<b>-321.59</b>		69.4			311.49	0.00			390.99
BT2		2 552	2 624		<b>2.94</b>	2.00	93.6	0.00	79.38	-	-	0.00	0.00	-
BT2				63	<b>-5.35</b>		71.3			0.26	-3.00			76.64
BT2				125	<b>-6.20</b>		80.1			1.05	5.85			86.28
BT2				250	<b>-4.80</b>		85.8			2.62	8.60			90.60
BT2				500	<b>-9.78</b>		88.6			4.99	14.00			98.37
BT2				1000	<b>-5.79</b>		88.3			9.71	5.00			94.09
BT2				2000	<b>-19.86</b>		85.0			25.45	0.00			104.83
BT2				4000	<b>-86.72</b>		78.7			86.07	0.00			165.45
BT2				8000	<b>-317.00</b>		69.4			307.03	0.00			386.41
BT3		2 981	3 036		<b>1.14</b>	2.00	93.6	0.00	80.65	-	-	0.00	0.00	-
BT3				63	<b>-6.66</b>		71.3			0.30	-3.00			77.95
BT3				125	<b>-7.63</b>		80.1			1.21	5.85			87.71
BT3				250	<b>-6.47</b>		85.8			3.04	8.60			92.28
BT3				500	<b>-11.83</b>		88.6			5.77	14.00			100.41
BT3				1000	<b>-8.58</b>		88.3			11.23	5.00			96.88
BT3				2000	<b>-25.12</b>		85.0			29.45	0.00			110.10
BT3				4000	<b>-101.50</b>		78.7			99.58	0.00			180.23
BT3				8000	<b>-366.46</b>		69.4			355.21	0.00			435.86
BT4		3 278	3 327		<b>0.02</b>	2.00	93.6	0.00	81.44	-	-	0.00	0.00	-
BT4				63	<b>-7.48</b>		71.3			0.33	-3.00			78.77
BT4				125	<b>-8.55</b>		80.1			1.33	5.85			88.62
BT4				250	<b>-7.56</b>		85.8			3.33	8.60			93.37
BT4				500	<b>-13.18</b>		88.6			6.32	14.00			101.76
BT4				1000	<b>-10.45</b>		88.3			12.31	5.00			98.75
BT4				2000	<b>-28.74</b>		85.0			32.28	0.00			113.72
BT4				4000	<b>-111.85</b>		78.7			109.14	0.00			190.58
BT4				8000	<b>-401.34</b>		69.4			389.30	0.00			470.74
BT5		3 680	3 736		<b>-1.32</b>	2.00	93.6	0.00	82.45	-	-	0.00	0.00	-
BT5				63	<b>-8.27</b>		71.3			0.37	-3.26			79.56
BT5				125	<b>-9.72</b>		80.1			1.49	5.85			89.79
BT5				250	<b>-8.98</b>		85.8			3.74	8.60			94.78
BT5				500	<b>-14.96</b>		88.6			7.10	14.00			103.54
BT5				1000	<b>-12.96</b>		88.3			13.82	5.00			101.27
BT5				2000	<b>-33.71</b>		85.0			36.23	0.00			118.68
BT5				4000	<b>-126.24</b>		78.7			122.52	0.00			204.97
BT5				8000	<b>-450.10</b>		69.4			437.05	0.00			519.50
BT6		4 313	4 354		<b>-3.04</b>	2.00	93.6	0.00	83.78	-	-	0.00	0.00	-
BT6				63	<b>-9.26</b>		71.3			0.44	-3.66			80.55
BT6				125	<b>-11.29</b>		80.1			1.74	5.85			91.37
BT6				250	<b>-10.92</b>		85.8			4.35	8.60			96.73
BT6				500	<b>-17.46</b>		88.6			8.27	14.00			106.05
BT6				1000	<b>-16.58</b>		88.3			16.11	5.00			104.89
BT6				2000	<b>-41.03</b>		85.0			42.23	0.00			126.01
BT6				4000	<b>-147.86</b>		78.7			142.81	0.00			226.59
BT6				8000	<b>-523.78</b>		69.4			509.41	0.00			593.19
BT7		4 661	4 700		<b>-3.88</b>	2.00	93.6	0.00	84.44	-	-	0.00	0.00	-
BT7				63	<b>-9.78</b>		71.3			0.47	-3.84			81.07
BT7				125	<b>-12.09</b>		80.1			1.88	5.85			92.17
BT7				250	<b>-11.93</b>		85.8			4.70	8.60			97.74
BT7				500	<b>-18.78</b>		88.6			8.93	14.00			107.37
BT7				1000	<b>-18.53</b>		88.3			17.39	5.00			106.83
BT7				2000	<b>-45.05</b>		85.0			45.59	0.00			130.03
BT7				4000	<b>-159.86</b>		78.7			154.14	0.00			238.59
BT7				8000	<b>-564.88</b>		69.4			549.85	0.00			634.29

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## DECIBEL - Detailed results

**Calculation:** NOTTURNO **Noise calculation model:** ISO 9613-2 General

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### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
Sum					<b>8.92</b>									
Sum				63	<b>29.48</b>									
Sum				125	<b>18.21</b>									
Sum				250	<b>11.81</b>									
Sum				500	<b>1.03</b>									
Sum				1000	<b>1.18</b>									
Sum				2000	<b>-15.31</b>									
Sum				4000	<b>-83.26</b>									
Sum				8000	<b>-312.60</b>									

- Data undefined due to calculation with octave data

Wind speed: 5.0 m/s

### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT1		2 614	2 662	63	<b>5.87</b>	2.00	96.5	0.00	79.51	-	-	0.00	0.00	-
BT1				125	<b>-2.18</b>		74.6			0.27	-3.00			76.77
BT1				250	<b>-3.11</b>		83.3			1.06	5.85			86.42
BT1				500	<b>-1.84</b>		88.9			2.66	8.60			90.77
BT1				1000	<b>-7.01</b>		91.6			5.06	14.00			98.56
BT1				2000	<b>-3.25</b>		91.1			9.85	5.00			94.36
BT1				4000	<b>-17.71</b>		87.6			25.82	0.00			105.33
BT1				8000	<b>-85.69</b>		81.1			87.32	0.00			166.83
BT1					<b>-319.50</b>		71.5			311.49	0.00			390.99
BT2		2 552	2 624	63	<b>6.05</b>	2.00	96.5	0.00	79.38	-	-	0.00	0.00	-
BT2				125	<b>-2.05</b>		74.6			0.26	-3.00			76.64
BT2				250	<b>-2.97</b>		83.3			1.05	5.85			86.28
BT2				500	<b>-1.67</b>		88.9			2.62	8.60			90.60
BT2				1000	<b>-6.81</b>		91.6			4.99	14.00			98.37
BT2				2000	<b>-2.99</b>		91.1			9.71	5.00			94.09
BT2				4000	<b>-17.21</b>		87.6			25.45	0.00			104.83
BT2				8000	<b>-84.31</b>		81.1			86.07	0.00			165.45
BT2					<b>-314.91</b>		71.5			307.03	0.00			386.41
BT3		2 981	3 036	63	<b>4.27</b>	2.00	96.5	0.00	80.65	-	-	0.00	0.00	-
BT3				125	<b>-3.36</b>		74.6			0.30	-3.00			77.95
BT3				250	<b>-4.40</b>		83.3			1.21	5.85			87.71
BT3				500	<b>-3.35</b>		88.9			3.04	8.60			92.28
BT3				1000	<b>-8.86</b>		91.6			5.77	14.00			100.41
BT3				2000	<b>-5.78</b>		91.1			11.23	5.00			96.88
BT3				4000	<b>-22.47</b>		87.6			29.45	0.00			110.10
BT3				8000	<b>-99.09</b>		81.1			99.58	0.00			180.23
BT3					<b>-364.37</b>		71.5			355.21	0.00			435.86
BT4		3 278	3 327	63	<b>3.16</b>	2.00	96.5	0.00	81.44	-	-	0.00	0.00	-
BT4				125	<b>-4.18</b>		74.6			0.33	-3.00			78.77
BT4				250	<b>-5.32</b>		83.3			1.33	5.85			88.62
BT4				500	<b>-4.44</b>		88.9			3.33	8.60			93.37
BT4				1000	<b>-10.21</b>		91.6			6.32	14.00			101.76
BT4				2000	<b>-7.65</b>		91.1			12.31	5.00			98.75
BT4				4000	<b>-26.10</b>		87.6			32.28	0.00			113.72
BT4				8000	<b>-109.44</b>		81.1			109.14	0.00			190.58
BT4					<b>-399.25</b>		71.5			389.30	0.00			470.74
BT5		3 680	3 736	63	<b>1.84</b>	2.00	96.5	0.00	82.45	-	-	0.00	0.00	-
BT5				125	<b>-4.97</b>		74.6			0.37	-3.26			79.56
BT5				250	<b>-6.49</b>		83.3			1.49	5.85			89.79
BT5				500	<b>-5.85</b>		88.9			3.74	8.60			94.78
BT5				1000	<b>-11.99</b>		91.6			7.10	14.00			103.54
BT5				2000	<b>-10.16</b>		91.1			13.82	5.00			101.27
BT5				4000	<b>-31.06</b>		87.6			36.23	0.00			118.68
BT5				8000	<b>-123.83</b>		81.1			122.52	0.00			204.97
BT5					<b>-448.01</b>		71.5			437.05	0.00			519.50
BT6		4 313	4 354	63	<b>0.15</b>	2.00	96.5	0.00	83.78	-	-	0.00	0.00	-
BT6				125	<b>-5.96</b>		74.6			0.44	-3.66			80.55
BT6					<b>-8.06</b>		83.3			1.74	5.85			91.37

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## DECIBEL - Detailed results

**Calculation:** NOTTURNO **Noise calculation model:** ISO 9613-2 General

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### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT6				250	-7.80		88.9			4.35	8.60			96.73
BT6				500	-14.50		91.6			8.27	14.00			106.05
BT6				1000	-13.78		91.1			16.11	5.00			104.89
BT6				2000	-38.39		87.6			42.23	0.00			126.01
BT6				4000	-145.45		81.1			142.81	0.00			226.59
BT6				8000	-521.69		71.5			509.41	0.00			593.19
BT7		4 661	4 700		-0.68	2.00	96.5	0.00	84.44	-	-	0.00	0.00	-
BT7				63	-6.48		74.6			0.47	-3.84			81.07
BT7				125	-8.87		83.3			1.88	5.85			92.17
BT7				250	-8.81		88.9			4.70	8.60			97.74
BT7				500	-15.82		91.6			8.93	14.00			107.37
BT7				1000	-15.73		91.1			17.39	5.00			106.83
BT7				2000	-42.40		87.6			45.59	0.00			130.03
BT7				4000	-157.45		81.1			154.14	0.00			238.59
BT7				8000	-562.79		71.5			549.85	0.00			634.29
Sum					12.05									
Sum				63	32.78									
Sum				125	21.44									
Sum				250	14.94									
Sum				500	3.99									
Sum				1000	3.98									
Sum				2000	-12.66									
Sum				4000	-80.85									
Sum				8000	-310.51									

- Data undefined due to calculation with octave data

Wind speed: 6.0 m/s

### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT1		2 614	2 662		9.45	2.00	100.0	0.00	79.51	-	-	0.00	0.00	-
BT1				63	1.46		78.2			0.27	-3.00			76.77
BT1				125	0.50		86.9			1.06	5.85			86.42
BT1				250	1.76		92.5			2.66	8.60			90.77
BT1				500	-3.48		95.1			5.06	14.00			98.56
BT1				1000	0.22		94.6			9.85	5.00			94.36
BT1				2000	-14.33		91.0			25.82	0.00			105.33
BT1				4000	-82.49		84.3			87.32	0.00			166.83
BT1				8000	-316.43		74.6			311.49	0.00			390.99
BT2		2 552	2 624		9.63	2.00	100.0	0.00	79.38	-	-	0.00	0.00	-
BT2				63	1.59		78.2			0.26	-3.00			76.64
BT2				125	0.64		86.9			1.05	5.85			86.28
BT2				250	1.93		92.5			2.62	8.60			90.60
BT2				500	-3.28		95.1			4.99	14.00			98.37
BT2				1000	0.49		94.6			9.71	5.00			94.09
BT2				2000	-13.83		91.0			25.45	0.00			104.83
BT2				4000	-81.11		84.3			86.07	0.00			165.45
BT2				8000	-311.85		74.6			307.03	0.00			386.41
BT3		2 981	3 036		7.86	2.00	100.0	0.00	80.65	-	-	0.00	0.00	-
BT3				63	0.28		78.2			0.30	-3.00			77.95
BT3				125	-0.79		86.9			1.21	5.85			87.71
BT3				250	0.25		92.5			3.04	8.60			92.28
BT3				500	-5.33		95.1			5.77	14.00			100.41
BT3				1000	-2.30		94.6			11.23	5.00			96.88
BT3				2000	-19.09		91.0			29.45	0.00			110.10
BT3				4000	-95.89		84.3			99.58	0.00			180.23
BT3				8000	-361.30		74.6			355.21	0.00			435.86
BT4		3 278	3 327		6.75	2.00	100.0	0.00	81.44	-	-	0.00	0.00	-
BT4				63	-0.55		78.2			0.33	-3.00			78.77
BT4				125	-1.70		86.9			1.33	5.85			88.62
BT4				250	-0.84		92.5			3.33	8.60			93.37
BT4				500	-6.68		95.1			6.32	14.00			101.76
BT4				1000	-4.18		94.6			12.31	5.00			98.75

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## DECIBEL - Detailed results

**Calculation:** NOTTURNO **Noise calculation model:** ISO 9613-2 General

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### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT4				2000	-22.72		91.0			32.28	0.00			113.72
BT4				4000	-106.24		84.3			109.14	0.00			190.58
BT4				8000	-396.19		74.6			389.30	0.00			470.74
BT5		3 680	3 736		5.44	2.00	100.0	0.00	82.45	-	-	0.00	0.00	-
BT5				63	-1.33		78.2			0.37	-3.26			79.56
BT5				125	-2.87		86.9			1.49	5.85			89.79
BT5				250	-2.25		92.5			3.74	8.60			94.78
BT5				500	-8.46		95.1			7.10	14.00			103.54
BT5				1000	-6.69		94.6			13.82	5.00			101.27
BT5				2000	-27.68		91.0			36.23	0.00			118.68
BT5				4000	-120.63		84.3			122.52	0.00			204.97
BT5				8000	-444.94		74.6			437.05	0.00			519.50
BT6		4 313	4 354		3.76	2.00	100.0	0.00	83.78	-	-	0.00	0.00	-
BT6				63	-2.32		78.2			0.44	-3.66			80.55
BT6				125	-4.45		86.9			1.74	5.85			91.37
BT6				250	-4.20		92.5			4.35	8.60			96.73
BT6				500	-10.97		95.1			8.27	14.00			106.05
BT6				1000	-10.31		94.6			16.11	5.00			104.89
BT6				2000	-35.01		91.0			42.23	0.00			126.01
BT6				4000	-142.25		84.3			142.81	0.00			226.59
BT6				8000	-518.63		74.6			509.41	0.00			593.19
BT7		4 661	4 700		2.93	2.00	100.0	0.00	84.44	-	-	0.00	0.00	-
BT7				63	-2.84		78.2			0.47	-3.84			81.07
BT7				125	-5.25		86.9			1.88	5.85			92.17
BT7				250	-5.21		92.5			4.70	8.60			97.74
BT7				500	-12.29		95.1			8.93	14.00			107.37
BT7				1000	-12.25		94.6			17.39	5.00			106.83
BT7				2000	-39.03		91.0			45.59	0.00			130.03
BT7				4000	-154.25		84.3			154.14	0.00			238.59
BT7				8000	-559.73		74.6			549.85	0.00			634.29
Sum					15.64									
Sum				63	36.42									
Sum				125	25.06									
Sum				250	18.54									
Sum				500	7.52									
Sum				1000	7.45									
Sum				2000	-9.28									
Sum				4000	-77.65									
Sum				8000	-307.45									

- Data undefined due to calculation with octave data

Wind speed: 7.0 m/s

### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT1		2 614	2 662		12.70	2.00	103.2	0.00	79.51	-	-	0.00	0.00	-
BT1				63	4.72		81.5			0.27	-3.00			76.77
BT1				125	3.79		90.2			1.06	5.85			86.42
BT1				250	5.02		95.8			2.66	8.60			90.77
BT1				500	-0.28		98.3			5.06	14.00			98.56
BT1				1000	3.42		97.8			9.85	5.00			94.36
BT1				2000	-11.25		94.1			25.82	0.00			105.33
BT1				4000	-79.45		87.4			87.32	0.00			166.83
BT1				8000	-313.48		77.5			311.49	0.00			390.99
BT2		2 552	2 624		12.87	2.00	103.2	0.00	79.38	-	-	0.00	0.00	-
BT2				63	4.85		81.5			0.26	-3.00			76.64
BT2				125	3.93		90.2			1.05	5.85			86.28
BT2				250	5.18		95.8			2.62	8.60			90.60
BT2				500	-0.08		98.3			4.99	14.00			98.37
BT2				1000	3.69		97.8			9.71	5.00			94.09
BT2				2000	-10.75		94.1			25.45	0.00			104.83
BT2				4000	-78.07		87.4			86.07	0.00			165.45
BT2				8000	-308.89		77.5			307.03	0.00			386.41

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## DECIBEL - Detailed results

**Calculation:** NOTTURNO **Noise calculation model:** ISO 9613-2 General

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### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT3		2 981	3 036		<b>11.11</b>	2.00	103.2	0.00	80.65	-	-	0.00	0.00	-
BT3				63	<b>3.54</b>		81.5			0.30	-3.00			77.95
BT3				125	<b>2.50</b>		90.2			1.21	5.85			87.71
BT3				250	<b>3.50</b>		95.8			3.04	8.60			92.28
BT3				500	<b>-2.13</b>		98.3			5.77	14.00			100.41
BT3				1000	<b>0.90</b>		97.8			11.23	5.00			96.88
BT3				2000	<b>-16.02</b>		94.1			29.45	0.00			110.10
BT3				4000	<b>-92.85</b>		87.4			99.58	0.00			180.23
BT3				8000	<b>-358.35</b>		77.5			355.21	0.00			435.86
BT4		3 278	3 327		<b>10.00</b>	2.00	103.2	0.00	81.44	-	-	0.00	0.00	-
BT4				63	<b>2.72</b>		81.5			0.33	-3.00			78.77
BT4				125	<b>1.58</b>		90.2			1.33	5.85			88.62
BT4				250	<b>2.42</b>		95.8			3.33	8.60			93.37
BT4				500	<b>-3.48</b>		98.3			6.32	14.00			101.76
BT4				1000	<b>-0.98</b>		97.8			12.31	5.00			98.75
BT4				2000	<b>-19.64</b>		94.1			32.28	0.00			113.72
BT4				4000	<b>-103.20</b>		87.4			109.14	0.00			190.58
BT4				8000	<b>-393.23</b>		77.5			389.30	0.00			470.74
BT5		3 680	3 736		<b>8.69</b>	2.00	103.2	0.00	82.45	-	-	0.00	0.00	-
BT5				63	<b>1.93</b>		81.5			0.37	-3.26			79.56
BT5				125	<b>0.41</b>		90.2			1.49	5.85			89.79
BT5				250	<b>1.00</b>		95.8			3.74	8.60			94.78
BT5				500	<b>-5.26</b>		98.3			7.10	14.00			103.54
BT5				1000	<b>-3.49</b>		97.8			13.82	5.00			101.27
BT5				2000	<b>-24.60</b>		94.1			36.23	0.00			118.68
BT5				4000	<b>-117.59</b>		87.4			122.52	0.00			204.97
BT5				8000	<b>-441.99</b>		77.5			437.05	0.00			519.50
BT6		4 313	4 354		<b>7.02</b>	2.00	103.2	0.00	83.78	-	-	0.00	0.00	-
BT6				63	<b>0.94</b>		81.5			0.44	-3.66			80.55
BT6				125	<b>-1.16</b>		90.2			1.74	5.85			91.37
BT6				250	<b>-0.95</b>		95.8			4.35	8.60			96.73
BT6				500	<b>-7.77</b>		98.3			8.27	14.00			106.05
BT6				1000	<b>-7.11</b>		97.8			16.11	5.00			104.89
BT6				2000	<b>-31.93</b>		94.1			42.23	0.00			126.01
BT6				4000	<b>-139.21</b>		87.4			142.81	0.00			226.59
BT6				8000	<b>-515.68</b>		77.5			509.41	0.00			593.19
BT7		4 661	4 700		<b>6.19</b>	2.00	103.2	0.00	84.44	-	-	0.00	0.00	-
BT7				63	<b>0.42</b>		81.5			0.47	-3.84			81.07
BT7				125	<b>-1.97</b>		90.2			1.88	5.85			92.17
BT7				250	<b>-1.95</b>		95.8			4.70	8.60			97.74
BT7				500	<b>-9.09</b>		98.3			8.93	14.00			107.37
BT7				1000	<b>-9.05</b>		97.8			17.39	5.00			106.83
BT7				2000	<b>-35.95</b>		94.1			45.59	0.00			130.03
BT7				4000	<b>-151.21</b>		87.4			154.14	0.00			238.59
BT7				8000	<b>-556.78</b>		77.5			549.85	0.00			634.29
Sum					<b>18.89</b>									
Sum				63	<b>39.68</b>									
Sum				125	<b>28.34</b>									
Sum				250	<b>21.79</b>									
Sum				500	<b>10.72</b>									
Sum				1000	<b>10.65</b>									
Sum				2000	<b>-6.20</b>									
Sum				4000	<b>-74.61</b>									
Sum				8000	<b>-304.50</b>									

- Data undefined due to calculation with octave data

Wind speed: 8.0 m/s

### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT1		2 614	2 662		<b>15.55</b>	2.00	106.0	0.00	79.51	-	-	0.00	0.00	-
BT1				63	<b>7.62</b>		84.4			0.27	-3.00			76.77
BT1				125	<b>6.69</b>		93.1			1.06	5.85			86.42

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## DECIBEL - Detailed results

**Calculation:** NOTTURNO **Noise calculation model:** ISO 9613-2 General

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### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT1				250	7.89		98.7			2.66	8.60			90.77
BT1				500	2.58		101.1			5.06	14.00			98.56
BT1				1000	6.16		100.5			9.85	5.00			94.36
BT1				2000	-8.55		96.8			25.82	0.00			105.33
BT1				4000	-76.85		90.0			87.32	0.00			166.83
BT1				8000	-310.99		80.0			311.49	0.00			390.99
BT2	2 552	2 624			15.73	2.00	106.0	0.00	79.38	-	-	0.00	0.00	-
BT2				63	7.75		84.4			0.26	-3.00			76.64
BT2				125	6.83		93.1			1.05	5.85			86.28
BT2				250	8.05		98.7			2.62	8.60			90.60
BT2				500	2.78		101.1			4.99	14.00			98.37
BT2				1000	6.43		100.5			9.71	5.00			94.09
BT2				2000	-8.05		96.8			25.45	0.00			104.83
BT2				4000	-75.47		90.0			86.07	0.00			165.45
BT2				8000	-306.40		80.0			307.03	0.00			386.41
BT3	2 981	3 036			13.97	2.00	106.0	0.00	80.65	-	-	0.00	0.00	-
BT3				63	6.44		84.4			0.30	-3.00			77.95
BT3				125	5.40		93.1			1.21	5.85			87.71
BT3				250	6.37		98.7			3.04	8.60			92.28
BT3				500	0.73		101.1			5.77	14.00			100.41
BT3				1000	3.63		100.5			11.23	5.00			96.88
BT3				2000	-13.32		96.8			29.45	0.00			110.10
BT3				4000	-90.25		90.0			99.58	0.00			180.23
BT3				8000	-355.86		80.0			355.21	0.00			435.86
BT4	3 278	3 327			12.87	2.00	106.0	0.00	81.44	-	-	0.00	0.00	-
BT4				63	5.62		84.4			0.33	-3.00			78.77
BT4				125	4.48		93.1			1.33	5.85			88.62
BT4				250	5.28		98.7			3.33	8.60			93.37
BT4				500	-0.62		101.1			6.32	14.00			101.76
BT4				1000	1.76		100.5			12.31	5.00			98.75
BT4				2000	-16.94		96.8			32.28	0.00			113.72
BT4				4000	-100.60		90.0			109.14	0.00			190.58
BT4				8000	-390.74		80.0			389.30	0.00			470.74
BT5	3 680	3 736			11.57	2.00	106.0	0.00	82.45	-	-	0.00	0.00	-
BT5				63	4.83		84.4			0.37	-3.26			79.56
BT5				125	3.31		93.1			1.49	5.85			89.79
BT5				250	3.87		98.7			3.74	8.60			94.78
BT5				500	-2.40		101.1			7.10	14.00			103.54
BT5				1000	-0.75		100.5			13.82	5.00			101.27
BT5				2000	-21.90		96.8			36.23	0.00			118.68
BT5				4000	-114.99		90.0			122.52	0.00			204.97
BT5				8000	-439.50		80.0			437.05	0.00			519.50
BT6	4 313	4 354			9.90	2.00	106.0	0.00	83.78	-	-	0.00	0.00	-
BT6				63	3.84		84.4			0.44	-3.66			80.55
BT6				125	1.74		93.1			1.74	5.85			91.37
BT6				250	1.92		98.7			4.35	8.60			96.73
BT6				500	-4.90		101.1			8.27	14.00			106.05
BT6				1000	-4.37		100.5			16.11	5.00			104.89
BT6				2000	-29.23		96.8			42.23	0.00			126.01
BT6				4000	-136.61		90.0			142.81	0.00			226.59
BT6				8000	-513.19		80.0			509.41	0.00			593.19
BT7	4 661	4 700			9.07	2.00	106.0	0.00	84.44	-	-	0.00	0.00	-
BT7				63	3.32		84.4			0.47	-3.84			81.07
BT7				125	0.93		93.1			1.88	5.85			92.17
BT7				250	0.91		98.7			4.70	8.60			97.74
BT7				500	-6.22		101.1			8.93	14.00			107.37
BT7				1000	-6.32		100.5			17.39	5.00			106.83
BT7				2000	-33.25		96.8			45.59	0.00			130.03
BT7				4000	-148.61		90.0			154.14	0.00			238.59
BT7				8000	-554.29		80.0			549.85	0.00			634.29
Sum					21.76									
Sum				63	42.58									
Sum				125	31.24									

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## DECIBEL - Detailed results

**Calculation:** NOTTURNO **Noise calculation model:** ISO 9613-2 General

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### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
Sum				250	<b>24.66</b>									
Sum				500	<b>13.59</b>									
Sum				1000	<b>13.39</b>									
Sum				2000	<b>-3.50</b>									
Sum				4000	<b>-72.01</b>									
Sum				8000	<b>-302.01</b>									

- Data undefined due to calculation with octave data

Wind speed: 9.0 m/s

### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT1		2 614	2 662	63	<b>16.50</b>	2.00	106.9	0.00	79.51	-	-	0.00	0.00	-
BT1				125	<b>8.62</b>		85.4			0.27	-3.00			76.77
BT1				250	<b>7.63</b>		94.1			1.06	5.85			86.42
BT1				500	<b>8.82</b>		99.6			2.66	8.60			90.77
BT1				1000	<b>3.48</b>		102.0			5.06	14.00			98.56
BT1				2000	<b>7.06</b>		101.4			9.85	5.00			94.36
BT1				4000	<b>-7.75</b>		97.6			25.82	0.00			105.33
BT1				8000	<b>-76.06</b>		90.8			87.32	0.00			166.83
BT1					<b>-310.31</b>		80.7			311.49	0.00			390.99
BT2		2 552	2 624	63	<b>16.67</b>	2.00	106.9	0.00	79.38	-	-	0.00	0.00	-
BT2				125	<b>8.75</b>		85.4			0.26	-3.00			76.64
BT2				250	<b>7.77</b>		94.1			1.05	5.85			86.28
BT2				500	<b>8.98</b>		99.6			2.62	8.60			90.60
BT2				1000	<b>3.68</b>		102.0			4.99	14.00			98.37
BT2				2000	<b>7.33</b>		101.4			9.71	5.00			94.09
BT2				4000	<b>-7.25</b>		97.6			25.45	0.00			104.83
BT2				8000	<b>-74.69</b>		90.8			86.07	0.00			165.45
BT2					<b>-305.73</b>		80.7			307.03	0.00			386.41
BT3		2 981	3 036	63	<b>14.92</b>	2.00	106.9	0.00	80.65	-	-	0.00	0.00	-
BT3				125	<b>7.44</b>		85.4			0.30	-3.00			77.95
BT3				250	<b>6.34</b>		94.1			1.21	5.85			87.71
BT3				500	<b>7.30</b>		99.6			3.04	8.60			92.28
BT3				1000	<b>1.63</b>		102.0			5.77	14.00			100.41
BT3				2000	<b>4.53</b>		101.4			11.23	5.00			96.88
BT3				4000	<b>-12.52</b>		97.6			29.45	0.00			110.10
BT3				8000	<b>-89.46</b>		90.8			99.58	0.00			180.23
BT3					<b>-355.18</b>		80.7			355.21	0.00			435.86
BT4		3 278	3 327	63	<b>13.82</b>	2.00	106.9	0.00	81.44	-	-	0.00	0.00	-
BT4				125	<b>6.62</b>		85.4			0.33	-3.00			78.77
BT4				250	<b>5.43</b>		94.1			1.33	5.85			88.62
BT4				500	<b>6.22</b>		99.6			3.33	8.60			93.37
BT4				1000	<b>0.28</b>		102.0			6.32	14.00			101.76
BT4				2000	<b>2.66</b>		101.4			12.31	5.00			98.75
BT4				4000	<b>-16.14</b>		97.6			32.28	0.00			113.72
BT4				8000	<b>-99.81</b>		90.8			109.14	0.00			190.58
BT4					<b>-390.07</b>		80.7			389.30	0.00			470.74
BT5		3 680	3 736	63	<b>12.52</b>	2.00	106.9	0.00	82.45	-	-	0.00	0.00	-
BT5				125	<b>5.83</b>		85.4			0.37	-3.26			79.56
BT5				250	<b>4.26</b>		94.1			1.49	5.85			89.79
BT5				500	<b>4.80</b>		99.6			3.74	8.60			94.78
BT5				1000	<b>-1.50</b>		102.0			7.10	14.00			103.54
BT5				2000	<b>0.15</b>		101.4			13.82	5.00			101.27
BT5				4000	<b>-21.10</b>		97.6			36.23	0.00			118.68
BT5				8000	<b>-114.21</b>		90.8			122.52	0.00			204.97
BT5					<b>-438.82</b>		80.7			437.05	0.00			519.50
BT6		4 313	4 354	63	<b>10.85</b>	2.00	106.9	0.00	83.78	-	-	0.00	0.00	-
BT6				125	<b>4.84</b>		85.4			0.44	-3.66			80.55
BT6				250	<b>2.68</b>		94.1			1.74	5.85			91.37
BT6				500	<b>2.85</b>		99.6			4.35	8.60			96.73
BT6				1000	<b>-4.00</b>		102.0			8.27	14.00			106.05
BT6					<b>-3.47</b>		101.4			16.11	5.00			104.89

To be continued on next page...

## DECIBEL - Detailed results

**Calculation:** NOTTURNO **Noise calculation model:** ISO 9613-2 General

...continued from previous page

### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT6				2000	-28.43		97.6			42.23	0.00			126.01
BT6				4000	-135.82		90.8			142.81	0.00			226.59
BT6				8000	-512.51		80.7			509.41	0.00			593.19
BT7		4 661	4 700		10.03	2.00	106.9	0.00	84.44	-	-	0.00	0.00	-
BT7				63	4.32		85.4			0.47	-3.84			81.07
BT7				125	1.88		94.1			1.88	5.85			92.17
BT7				250	1.85		99.6			4.70	8.60			97.74
BT7				500	-5.32		102.0			8.93	14.00			107.37
BT7				1000	-5.42		101.4			17.39	5.00			106.83
BT7				2000	-32.45		97.6			45.59	0.00			130.03
BT7				4000	-147.82		90.8			154.14	0.00			238.59
BT7				8000	-553.61		80.7			549.85	0.00			634.29
Sum					22.70									
Sum				63	43.58									
Sum				125	32.19									
Sum				250	25.59									
Sum				500	14.49									
Sum				1000	14.29									
Sum				2000	-2.70									
Sum				4000	-71.22									
Sum				8000	-301.33									

- Data undefined due to calculation with octave data

Wind speed: 10.0 m/s

### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT1		2 614	2 662		16.46	2.00	106.9	0.00	79.51	-	-	0.00	0.00	-
BT1				63	8.52		85.3			0.27	-3.00			76.77
BT1				125	7.60		94.0			1.06	5.85			86.42
BT1				250	8.79		99.6			2.66	8.60			90.77
BT1				500	3.48		102.0			5.06	14.00			98.56
BT1				1000	7.06		101.4			9.85	5.00			94.36
BT1				2000	-7.65		97.7			25.82	0.00			105.33
BT1				4000	-75.96		90.9			87.32	0.00			166.83
BT1				8000	-310.18		80.8			311.49	0.00			390.99
BT2		2 552	2 624		16.63	2.00	106.9	0.00	79.38	-	-	0.00	0.00	-
BT2				63	8.65		85.3			0.26	-3.00			76.64
BT2				125	7.74		94.0			1.05	5.85			86.28
BT2				250	8.95		99.6			2.62	8.60			90.60
BT2				500	3.68		102.0			4.99	14.00			98.37
BT2				1000	7.33		101.4			9.71	5.00			94.09
BT2				2000	-7.15		97.7			25.45	0.00			104.83
BT2				4000	-74.59		90.9			86.07	0.00			165.45
BT2				8000	-305.59		80.8			307.03	0.00			386.41
BT3		2 981	3 036		14.88	2.00	106.9	0.00	80.65	-	-	0.00	0.00	-
BT3				63	7.34		85.3			0.30	-3.00			77.95
BT3				125	6.31		94.0			1.21	5.85			87.71
BT3				250	7.27		99.6			3.04	8.60			92.28
BT3				500	1.63		102.0			5.77	14.00			100.41
BT3				1000	4.53		101.4			11.23	5.00			96.88
BT3				2000	-12.42		97.7			29.45	0.00			110.10
BT3				4000	-89.36		90.9			99.58	0.00			180.23
BT3				8000	-355.05		80.8			355.21	0.00			435.86
BT4		3 278	3 327		13.77	2.00	106.9	0.00	81.44	-	-	0.00	0.00	-
BT4				63	6.52		85.3			0.33	-3.00			78.77
BT4				125	5.40		94.0			1.33	5.85			88.62
BT4				250	6.18		99.6			3.33	8.60			93.37
BT4				500	0.28		102.0			6.32	14.00			101.76
BT4				1000	2.66		101.4			12.31	5.00			98.75
BT4				2000	-16.04		97.7			32.28	0.00			113.72
BT4				4000	-99.71		90.9			109.14	0.00			190.58
BT4				8000	-389.93		80.8			389.30	0.00			470.74

To be continued on next page...

Project:

**230515 Modello Borgo Taro per acustica**

Licensed user:

**MORI MANTOVANI ASSOCIATI SRL**

VIA STRASBURGO 18A

IT-43123 PARMA

+390521239944

GIULIO BARTOLI / giulio@morimantovani.it

Calculated:

02/06/2023 13:09/3.6.366

## DECIBEL - Detailed results

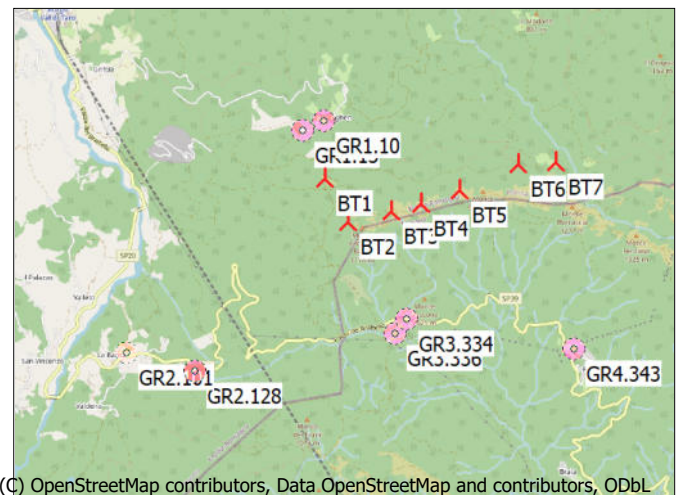
**Calculation:** NOTTURNO **Noise calculation model:** ISO 9613-2 General

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**WTG**

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT5		3 680	3 736		<b>12.47</b>	2.00	106.9	0.00	82.45	-	-	0.00	0.00	-
BT5				63	<b>5.73</b>		85.3			0.37	-3.26			79.56
BT5				125	<b>4.23</b>		94.0			1.49	5.85			89.79
BT5				250	<b>4.77</b>		99.6			3.74	8.60			94.78
BT5				500	<b>-1.50</b>		102.0			7.10	14.00			103.54
BT5				1000	<b>0.15</b>		101.4			13.82	5.00			101.27
BT5				2000	<b>-21.00</b>		97.7			36.23	0.00			118.68
BT5				4000	<b>-114.11</b>		90.9			122.52	0.00			204.97
BT5				8000	<b>-438.69</b>		80.8			437.05	0.00			519.50
BT6		4 313	4 354		<b>10.80</b>	2.00	106.9	0.00	83.78	-	-	0.00	0.00	-
BT6				63	<b>4.74</b>		85.3			0.44	-3.66			80.55
BT6				125	<b>2.65</b>		94.0			1.74	5.85			91.37
BT6				250	<b>2.82</b>		99.6			4.35	8.60			96.73
BT6				500	<b>-4.00</b>		102.0			8.27	14.00			106.05
BT6				1000	<b>-3.47</b>		101.4			16.11	5.00			104.89
BT6				2000	<b>-28.33</b>		97.7			42.23	0.00			126.01
BT6				4000	<b>-135.72</b>		90.9			142.81	0.00			226.59
BT6				8000	<b>-512.38</b>		80.8			509.41	0.00			593.19
BT7		4 661	4 700		<b>9.97</b>	2.00	106.9	0.00	84.44	-	-	0.00	0.00	-
BT7				63	<b>4.22</b>		85.3			0.47	-3.84			81.07
BT7				125	<b>1.85</b>		94.0			1.88	5.85			92.17
BT7				250	<b>1.81</b>		99.6			4.70	8.60			97.74
BT7				500	<b>-5.32</b>		102.0			8.93	14.00			107.37
BT7				1000	<b>-5.42</b>		101.4			17.39	5.00			106.83
BT7				2000	<b>-32.35</b>		97.7			45.59	0.00			130.03
BT7				4000	<b>-147.72</b>		90.9			154.14	0.00			238.59
BT7				8000	<b>-553.48</b>		80.8			549.85	0.00			634.29
Sum					<b>22.66</b>									
Sum				63	<b>43.48</b>									
Sum				125	<b>32.16</b>									
Sum				250	<b>25.56</b>									
Sum				500	<b>14.49</b>									
Sum				1000	<b>14.29</b>									
Sum				2000	<b>-2.60</b>									
Sum				4000	<b>-71.12</b>									
Sum				8000	<b>-301.20</b>									

- Data undefined due to calculation with octave data



New WTG

Scale 1:75 000  
Noise sensitive area

## DECIBEL - Detailed results

Calculation: NOTTURNO Noise calculation model: ISO 9613-2 General

Noise sensitive area: GR2.128 Valdena

Wind speed: 3.0 m/s

WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT1		2 292	2 336	63	3.81	2.00	93.2	0.00	78.37	-	-	0.00	0.00	-
BT1				125	-5.09		70.5			0.23	-3.00			75.60
BT1				250	-5.78		79.4			0.93	5.85			85.15
BT1				500	-4.10		85.2			2.34	8.60			89.31
BT1				1000	-8.72		88.1			4.44	14.00			96.81
BT1				2000	-4.02		88.0			8.64	5.00			92.02
BT1				4000	-16.20		84.8			22.66	0.00			101.03
BT1				8000	-76.35		78.7			76.63	0.00			155.01
BT1					-282.28		69.5			273.36	0.00			351.73
BT2	2 112	2 186		63	4.65	2.00	93.2	0.00	77.79	-	-	0.00	0.00	-
BT2				125	-4.49		70.5			0.22	-3.00			75.01
BT2				250	-5.14		79.4			0.87	5.85			84.51
BT2				500	-3.37		85.2			2.19	8.60			88.58
BT2				1000	-7.86		88.1			4.15	14.00			95.94
BT2				2000	-2.88		88.0			8.09	5.00			90.88
BT2				4000	-14.16		84.8			21.20	0.00			98.99
BT2				8000	-70.82		78.7			71.69	0.00			149.48
BT2					-264.05		69.5			255.71	0.00			333.50
BT3	2 507	2 562		63	2.66	2.00	93.2	0.00	79.17	-	-	0.00	0.00	-
BT3				125	-5.91		70.5			0.26	-3.00			76.43
BT3				250	-6.67		79.4			1.02	5.85			86.05
BT3				500	-5.13		85.2			2.56	8.60			90.33
BT3				1000	-9.95		88.1			4.87	14.00			98.04
BT3				2000	-5.66		88.0			9.48	5.00			93.65
BT3				4000	-19.19		84.8			24.85	0.00			104.02
BT3				8000	-84.55		78.7			84.04	0.00			163.21
BT3					-309.49		69.5			299.77	0.00			378.94
BT4	2 788	2 836		63	1.39	2.00	93.2	0.00	80.05	-	-	0.00	0.00	-
BT4				125	-6.82		70.5			0.28	-3.00			77.34
BT4				250	-7.66		79.4			1.13	5.85			87.04
BT4				500	-6.28		85.2			2.84	8.60			91.49
BT4				1000	-11.35		88.1			5.39	14.00			99.44
BT4				2000	-7.55		88.0			10.49	5.00			95.54
BT4				4000	-22.73		84.8			27.51	0.00			107.56
BT4				8000	-94.40		78.7			93.01	0.00			173.06
BT4					-342.37		69.5			331.77	0.00			411.82
BT5	3 177	3 232		63	-0.24	2.00	93.2	0.00	81.19	-	-	0.00	0.00	-
BT5				125	-7.99		70.5			0.32	-3.00			78.51
BT5				250	-8.96		79.4			1.29	5.85			88.33
BT5				500	-7.81		85.2			3.23	8.60			93.02
BT5				1000	-13.24		88.1			6.14	14.00			101.33
BT5				2000	-10.15		88.0			11.96	5.00			98.15
BT5				4000	-27.71		84.8			31.35	0.00			112.54
BT5				8000	-108.54		78.7			106.01	0.00			187.20
BT5					-389.88		69.5			378.14	0.00			459.33
BT6	3 802	3 841		63	-2.28	2.00	93.2	0.00	82.69	-	-	0.00	0.00	-
BT6				125	-9.21		70.5			0.38	-3.35			79.72
BT6				250	-10.70		79.4			1.54	5.85			90.07
BT6				500	-9.92		85.2			3.84	8.60			95.13
BT6				1000	-15.90		88.1			7.30	14.00			103.99
BT6				2000	-13.91		88.0			14.21	5.00			101.90
BT6				4000	-35.12		84.8			37.26	0.00			119.95
BT6				8000	-130.02		78.7			125.99	0.00			208.67
BT6					-462.64		69.5			449.40	0.00			532.09
BT7	4 133	4 169		63	-3.21	2.00	93.2	0.00	83.40	-	-	0.00	0.00	-
BT7				125	-9.74		70.5			0.42	-3.56			80.26
BT7				250	-11.54		79.4			1.67	5.85			90.92
BT7				500	-10.96		85.2			4.17	8.60			96.17
BT7				1000	-17.23		88.1			7.92	14.00			105.32
BT7				2000	-15.83		88.0			15.43	5.00			103.83
BT7				4000	-39.01		84.8			40.44	0.00			123.84
BT7				8000	-141.49		78.7			136.75	0.00			220.15

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## DECIBEL - Detailed results

**Calculation:** NOTTURNO **Noise calculation model:** ISO 9613-2 General

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### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT7				8000	<b>-501.73</b>		69.5			487.78	0.00			571.18
Sum					<b>10.24</b>									
Sum				63	<b>30.00</b>									
Sum				125	<b>19.03</b>									
Sum				250	<b>13.00</b>									
Sum				500	<b>2.72</b>									
Sum				1000	<b>3.82</b>									
Sum				2000	<b>-10.07</b>									
Sum				4000	<b>-68.59</b>									
Sum				8000	<b>-260.88</b>									

- Data undefined due to calculation with octave data

Wind speed: 4.0 m/s

### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT1		2 292	2 336		<b>4.38</b>	2.00	93.6	0.00	78.37	-	-	0.00	0.00	-
BT1				63	<b>-4.31</b>		71.3			0.23	-3.00			75.60
BT1				125	<b>-5.08</b>		80.1			0.93	5.85			85.15
BT1				250	<b>-3.50</b>		85.8			2.34	8.60			89.31
BT1				500	<b>-8.22</b>		88.6			4.44	14.00			96.81
BT1				1000	<b>-3.71</b>		88.3			8.64	5.00			92.02
BT1				2000	<b>-16.06</b>		85.0			22.66	0.00			101.03
BT1				4000	<b>-76.28</b>		78.7			76.63	0.00			155.01
BT1				8000	<b>-282.33</b>		69.4			273.36	0.00			351.73
BT2		2 112	2 186		<b>5.20</b>	2.00	93.6	0.00	77.79	-	-	0.00	0.00	-
BT2				63	<b>-3.72</b>		71.3			0.22	-3.00			75.01
BT2				125	<b>-4.44</b>		80.1			0.87	5.85			84.51
BT2				250	<b>-2.77</b>		85.8			2.19	8.60			88.58
BT2				500	<b>-7.36</b>		88.6			4.15	14.00			95.94
BT2				1000	<b>-2.57</b>		88.3			8.09	5.00			90.88
BT2				2000	<b>-14.02</b>		85.0			21.20	0.00			98.99
BT2				4000	<b>-70.75</b>		78.7			71.69	0.00			149.48
BT2				8000	<b>-264.10</b>		69.4			255.71	0.00			333.50
BT3		2 507	2 562		<b>3.24</b>	2.00	93.6	0.00	79.17	-	-	0.00	0.00	-
BT3				63	<b>-5.14</b>		71.3			0.26	-3.00			76.43
BT3				125	<b>-5.97</b>		80.1			1.02	5.85			86.05
BT3				250	<b>-4.53</b>		85.8			2.56	8.60			90.33
BT3				500	<b>-9.45</b>		88.6			4.87	14.00			98.04
BT3				1000	<b>-5.35</b>		88.3			9.48	5.00			93.65
BT3				2000	<b>-19.05</b>		85.0			24.85	0.00			104.02
BT3				4000	<b>-84.48</b>		78.7			84.04	0.00			163.21
BT3				8000	<b>-309.54</b>		69.4			299.77	0.00			378.94
BT4		2 788	2 836		<b>1.99</b>	2.00	93.6	0.00	80.05	-	-	0.00	0.00	-
BT4				63	<b>-6.05</b>		71.3			0.28	-3.00			77.34
BT4				125	<b>-6.96</b>		80.1			1.13	5.85			87.04
BT4				250	<b>-5.68</b>		85.8			2.84	8.60			91.49
BT4				500	<b>-10.85</b>		88.6			5.39	14.00			99.44
BT4				1000	<b>-7.24</b>		88.3			10.49	5.00			95.54
BT4				2000	<b>-22.58</b>		85.0			27.51	0.00			107.56
BT4				4000	<b>-94.33</b>		78.7			93.01	0.00			173.06
BT4				8000	<b>-342.42</b>		69.4			331.77	0.00			411.82
BT5		3 177	3 232		<b>0.37</b>	2.00	93.6	0.00	81.19	-	-	0.00	0.00	-
BT5				63	<b>-7.22</b>		71.3			0.32	-3.00			78.51
BT5				125	<b>-8.26</b>		80.1			1.29	5.85			88.33
BT5				250	<b>-7.21</b>		85.8			3.23	8.60			93.02
BT5				500	<b>-12.74</b>		88.6			6.14	14.00			101.33
BT5				1000	<b>-9.84</b>		88.3			11.96	5.00			98.15
BT5				2000	<b>-27.56</b>		85.0			31.35	0.00			112.54
BT5				4000	<b>-108.47</b>		78.7			106.01	0.00			187.20
BT5				8000	<b>-389.93</b>		69.4			378.14	0.00			459.33
BT6		3 802	3 841		<b>-1.63</b>	2.00	93.6	0.00	82.69	-	-	0.00	0.00	-
BT6				63	<b>-8.43</b>		71.3			0.38	-3.35			79.72

To be continued on next page...



## DECIBEL - Detailed results

**Calculation:** NOTTURNO **Noise calculation model:** ISO 9613-2 General

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### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT6				125	-10.00		80.1			1.54	5.85			90.07
BT6				250	-9.32		85.8			3.84	8.60			95.13
BT6				500	-15.40		88.6			7.30	14.00			103.99
BT6				1000	-13.60		88.3			14.21	5.00			101.90
BT6				2000	-34.97		85.0			37.26	0.00			119.95
BT6				4000	-129.95		78.7			125.99	0.00			208.67
BT6				8000	-462.68		69.4			449.40	0.00			532.09
BT7		4 133	4 169		-2.55	2.00	93.6	0.00	83.40	-	-	0.00	0.00	-
BT7				63	-8.97		71.3			0.42	-3.56			80.26
BT7				125	-10.84		80.1			1.67	5.85			90.92
BT7				250	-10.36		85.8			4.17	8.60			96.17
BT7				500	-16.73		88.6			7.92	14.00			105.32
BT7				1000	-15.52		88.3			15.43	5.00			103.83
BT7				2000	-38.86		85.0			40.44	0.00			123.84
BT7				4000	-141.42		78.7			136.75	0.00			220.15
BT7				8000	-501.78		69.4			487.78	0.00			571.18
Sum					10.82									
Sum				63	30.78									
Sum				125	19.73									
Sum				250	13.60									
Sum				500	3.22									
Sum				1000	4.13									
Sum				2000	-9.93									
Sum				4000	-68.52									
Sum				8000	-260.93									

- Data undefined due to calculation with octave data

Wind speed: 5.0 m/s

### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT1		2 292	2 336		7.46	2.00	96.5	0.00	78.37	-	-	0.00	0.00	-
BT1				63	-1.01		74.6			0.23	-3.00			75.60
BT1				125	-1.85		83.3			0.93	5.85			85.15
BT1				250	-0.38		88.9			2.34	8.60			89.31
BT1				500	-5.26		91.6			4.44	14.00			96.81
BT1				1000	-0.91		91.1			8.64	5.00			92.02
BT1				2000	-13.41		87.6			22.66	0.00			101.03
BT1				4000	-73.87		81.1			76.63	0.00			155.01
BT1				8000	-280.24		71.5			273.36	0.00			351.73
BT2		2 112	2 186		8.27	2.00	96.5	0.00	77.79	-	-	0.00	0.00	-
BT2				63	-0.42		74.6			0.22	-3.00			75.01
BT2				125	-1.21		83.3			0.87	5.85			84.51
BT2				250	0.35		88.9			2.19	8.60			88.58
BT2				500	-4.39		91.6			4.15	14.00			95.94
BT2				1000	0.23		91.1			8.09	5.00			90.88
BT2				2000	-11.37		87.6			21.20	0.00			98.99
BT2				4000	-68.34		81.1			71.69	0.00			149.48
BT2				8000	-262.01		71.5			255.71	0.00			333.50
BT3		2 507	2 562		6.34	2.00	96.5	0.00	79.17	-	-	0.00	0.00	-
BT3				63	-1.84		74.6			0.26	-3.00			76.43
BT3				125	-2.74		83.3			1.02	5.85			86.05
BT3				250	-1.40		88.9			2.56	8.60			90.33
BT3				500	-6.49		91.6			4.87	14.00			98.04
BT3				1000	-2.55		91.1			9.48	5.00			93.65
BT3				2000	-16.40		87.6			24.85	0.00			104.02
BT3				4000	-82.07		81.1			84.04	0.00			163.21
BT3				8000	-307.45		71.5			299.77	0.00			378.94
BT4		2 788	2 836		5.10	2.00	96.5	0.00	80.05	-	-	0.00	0.00	-
BT4				63	-2.75		74.6			0.28	-3.00			77.34
BT4				125	-3.73		83.3			1.13	5.85			87.04
BT4				250	-2.56		88.9			2.84	8.60			91.49
BT4				500	-7.89		91.6			5.39	14.00			99.44

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Project:

**230515 Modello Borgo Taro per acustica**

Licensed user:

**MORI MANTOVANI ASSOCIATI SRL**

VIA STRASBURGO 18A

IT-43123 PARMA

+390521239944

GIULIO BARTOLI / giulio@morimantovani.it

Calculated:

02/06/2023 13:09/3.6.366

## DECIBEL - Detailed results

**Calculation:** NOTTURNO **Noise calculation model:** ISO 9613-2 General

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**WTG**

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT4				1000	<b>-4.44</b>		91.1			10.49	5.00			95.54
BT4				2000	<b>-19.94</b>		87.6			27.51	0.00			107.56
BT4				4000	<b>-91.92</b>		81.1			93.01	0.00			173.06
BT4				8000	<b>-340.33</b>		71.5			331.77	0.00			411.82
BT5		3 177	3 232		<b>3.51</b>	2.00	96.5	0.00	81.19	-	-	0.00	0.00	-
BT5				63	<b>-3.92</b>		74.6			0.32	-3.00			78.51
BT5				125	<b>-5.03</b>		83.3			1.29	5.85			88.33
BT5				250	<b>-4.09</b>		88.9			3.23	8.60			93.02
BT5				500	<b>-9.78</b>		91.6			6.14	14.00			101.33
BT5				1000	<b>-7.04</b>		91.1			11.96	5.00			98.15
BT5				2000	<b>-24.92</b>		87.6			31.35	0.00			112.54
BT5				4000	<b>-106.06</b>		81.1			106.01	0.00			187.20
BT5				8000	<b>-387.84</b>		71.5			378.14	0.00			459.33
BT6		3 802	3 841		<b>1.53</b>	2.00	96.5	0.00	82.69	-	-	0.00	0.00	-
BT6				63	<b>-5.13</b>		74.6			0.38	-3.35			79.72
BT6				125	<b>-6.77</b>		83.3			1.54	5.85			90.07
BT6				250	<b>-6.20</b>		88.9			3.84	8.60			95.13
BT6				500	<b>-12.44</b>		91.6			7.30	14.00			103.99
BT6				1000	<b>-10.80</b>		91.1			14.21	5.00			101.90
BT6				2000	<b>-32.32</b>		87.6			37.26	0.00			119.95
BT6				4000	<b>-127.54</b>		81.1			125.99	0.00			208.67
BT6				8000	<b>-460.60</b>		71.5			449.40	0.00			532.09
BT7		4 133	4 169		<b>0.63</b>	2.00	96.5	0.00	83.40	-	-	0.00	0.00	-
BT7				63	<b>-5.67</b>		74.6			0.42	-3.56			80.26
BT7				125	<b>-7.61</b>		83.3			1.67	5.85			90.92
BT7				250	<b>-7.24</b>		88.9			4.17	8.60			96.17
BT7				500	<b>-13.77</b>		91.6			7.92	14.00			105.32
BT7				1000	<b>-12.72</b>		91.1			15.43	5.00			103.83
BT7				2000	<b>-36.22</b>		87.6			40.44	0.00			123.84
BT7				4000	<b>-139.01</b>		81.1			136.75	0.00			220.15
BT7				8000	<b>-499.69</b>		71.5			487.78	0.00			571.18
Sum					<b>13.92</b>									
Sum				63	<b>34.08</b>									
Sum				125	<b>22.96</b>									
Sum				250	<b>16.73</b>									
Sum				500	<b>6.18</b>									
Sum				1000	<b>6.93</b>									
Sum				2000	<b>-7.28</b>									
Sum				4000	<b>-66.11</b>									
Sum				8000	<b>-258.84</b>									

- Data undefined due to calculation with octave data

Wind speed: 6.0 m/s

**WTG**

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT1		2 292	2 336		<b>11.03</b>	2.00	100.0	0.00	78.37	-	-	0.00	0.00	-
BT1				63	<b>2.62</b>		78.2			0.23	-3.00			75.60
BT1				125	<b>1.77</b>		86.9			0.93	5.85			85.15
BT1				250	<b>3.22</b>		92.5			2.34	8.60			89.31
BT1				500	<b>-1.73</b>		95.1			4.44	14.00			96.81
BT1				1000	<b>2.56</b>		94.6			8.64	5.00			92.02
BT1				2000	<b>-10.03</b>		91.0			22.66	0.00			101.03
BT1				4000	<b>-70.67</b>		84.3			76.63	0.00			155.01
BT1				8000	<b>-277.17</b>		74.6			273.36	0.00			351.73
BT2		2 112	2 186		<b>11.84</b>	2.00	100.0	0.00	77.79	-	-	0.00	0.00	-
BT2				63	<b>3.22</b>		78.2			0.22	-3.00			75.01
BT2				125	<b>2.41</b>		86.9			0.87	5.85			84.51
BT2				250	<b>3.95</b>		92.5			2.19	8.60			88.58
BT2				500	<b>-0.86</b>		95.1			4.15	14.00			95.94
BT2				1000	<b>3.70</b>		94.6			8.09	5.00			90.88
BT2				2000	<b>-7.99</b>		91.0			21.20	0.00			98.99
BT2				4000	<b>-65.14</b>		84.3			71.69	0.00			149.48

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## DECIBEL - Detailed results

**Calculation:** NOTTURNO **Noise calculation model:** ISO 9613-2 General

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### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT2				8000	<b>-258.94</b>		74.6			255.71	0.00			333.50
BT3		2 507	2 562		<b>9.92</b>	2.00	100.0	0.00	79.17	-	-	0.00	0.00	-
BT3				63	<b>1.80</b>		78.2			0.26	-3.00			76.43
BT3				125	<b>0.88</b>		86.9			1.02	5.85			86.05
BT3				250	<b>2.20</b>		92.5			2.56	8.60			90.33
BT3				500	<b>-2.96</b>		95.1			4.87	14.00			98.04
BT3				1000	<b>0.92</b>		94.6			9.48	5.00			93.65
BT3				2000	<b>-13.02</b>		91.0			24.85	0.00			104.02
BT3				4000	<b>-78.87</b>		84.3			84.04	0.00			163.21
BT3				8000	<b>-304.38</b>		74.6			299.77	0.00			378.94
BT4		2 788	2 836		<b>8.69</b>	2.00	100.0	0.00	80.05	-	-	0.00	0.00	-
BT4				63	<b>0.89</b>		78.2			0.28	-3.00			77.34
BT4				125	<b>-0.12</b>		86.9			1.13	5.85			87.04
BT4				250	<b>1.04</b>		92.5			2.84	8.60			91.49
BT4				500	<b>-4.36</b>		95.1			5.39	14.00			99.44
BT4				1000	<b>-0.97</b>		94.6			10.49	5.00			95.54
BT4				2000	<b>-16.56</b>		91.0			27.51	0.00			107.56
BT4				4000	<b>-88.72</b>		84.3			93.01	0.00			173.06
BT4				8000	<b>-337.27</b>		74.6			331.77	0.00			411.82
BT5		3 177	3 232		<b>7.10</b>	2.00	100.0	0.00	81.19	-	-	0.00	0.00	-
BT5				63	<b>-0.28</b>		78.2			0.32	-3.00			78.51
BT5				125	<b>-1.41</b>		86.9			1.29	5.85			88.33
BT5				250	<b>-0.49</b>		92.5			3.23	8.60			93.02
BT5				500	<b>-6.25</b>		95.1			6.14	14.00			101.33
BT5				1000	<b>-3.57</b>		94.6			11.96	5.00			98.15
BT5				2000	<b>-21.54</b>		91.0			31.35	0.00			112.54
BT5				4000	<b>-102.86</b>		84.3			106.01	0.00			187.20
BT5				8000	<b>-384.77</b>		74.6			378.14	0.00			459.33
BT6		3 802	3 841		<b>5.13</b>	2.00	100.0	0.00	82.69	-	-	0.00	0.00	-
BT6				63	<b>-1.49</b>		78.2			0.38	-3.35			79.72
BT6				125	<b>-3.15</b>		86.9			1.54	5.85			90.07
BT6				250	<b>-2.60</b>		92.5			3.84	8.60			95.13
BT6				500	<b>-8.91</b>		95.1			7.30	14.00			103.99
BT6				1000	<b>-7.32</b>		94.6			14.21	5.00			101.90
BT6				2000	<b>-28.95</b>		91.0			37.26	0.00			119.95
BT6				4000	<b>-124.34</b>		84.3			125.99	0.00			208.67
BT6				8000	<b>-457.53</b>		74.6			449.40	0.00			532.09
BT7		4 133	4 169		<b>4.23</b>	2.00	100.0	0.00	83.40	-	-	0.00	0.00	-
BT7				63	<b>-2.03</b>		78.2			0.42	-3.56			80.26
BT7				125	<b>-4.00</b>		86.9			1.67	5.85			90.92
BT7				250	<b>-3.64</b>		92.5			4.17	8.60			96.17
BT7				500	<b>-10.24</b>		95.1			7.92	14.00			105.32
BT7				1000	<b>-9.25</b>		94.6			15.43	5.00			103.83
BT7				2000	<b>-32.84</b>		91.0			40.44	0.00			123.84
BT7				4000	<b>-135.81</b>		84.3			136.75	0.00			220.15
BT7				8000	<b>-496.63</b>		74.6			487.78	0.00			571.18
Sum					<b>17.50</b>									
Sum				63	<b>37.72</b>									
Sum				125	<b>26.58</b>									
Sum				250	<b>20.33</b>									
Sum				500	<b>9.71</b>									
Sum				1000	<b>10.41</b>									
Sum				2000	<b>-3.90</b>									
Sum				4000	<b>-62.91</b>									
Sum				8000	<b>-255.78</b>									

- Data undefined due to calculation with octave data

Wind speed: 7.0 m/s

### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT1		2 292	2 336		<b>14.28</b>	2.00	103.2	0.00	78.37	-	-	0.00	0.00	-
BT1				63	<b>5.89</b>		81.5			0.23	-3.00			75.60

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## DECIBEL - Detailed results

**Calculation:** NOTTURNO **Noise calculation model:** ISO 9613-2 General

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### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT1				125	5.05		90.2			0.93	5.85			85.15
BT1				250	6.48		95.8			2.34	8.60			89.31
BT1				500	1.47		98.3			4.44	14.00			96.81
BT1				1000	5.76		97.8			8.64	5.00			92.02
BT1				2000	-6.95		94.1			22.66	0.00			101.03
BT1				4000	-67.63		87.4			76.63	0.00			155.01
BT1				8000	-274.22		77.5			273.36	0.00			351.73
BT2	2 112	2 186			15.08	2.00	103.2	0.00	77.79	-	-	0.00	0.00	-
BT2				63	6.48		81.5			0.22	-3.00			75.01
BT2				125	5.69		90.2			0.87	5.85			84.51
BT2				250	7.21		95.8			2.19	8.60			88.58
BT2				500	2.34		98.3			4.15	14.00			95.94
BT2				1000	6.90		97.8			8.09	5.00			90.88
BT2				2000	-4.91		94.1			21.20	0.00			98.99
BT2				4000	-62.10		87.4			71.69	0.00			149.48
BT2				8000	-255.99		77.5			255.71	0.00			333.50
BT3	2 507	2 562			13.16	2.00	103.2	0.00	79.17	-	-	0.00	0.00	-
BT3				63	5.06		81.5			0.26	-3.00			76.43
BT3				125	4.16		90.2			1.02	5.85			86.05
BT3				250	5.45		95.8			2.56	8.60			90.33
BT3				500	0.24		98.3			4.87	14.00			98.04
BT3				1000	4.12		97.8			9.48	5.00			93.65
BT3				2000	-9.94		94.1			24.85	0.00			104.02
BT3				4000	-75.83		87.4			84.04	0.00			163.21
BT3				8000	-301.43		77.5			299.77	0.00			378.94
BT4	2 788	2 836			11.93	2.00	103.2	0.00	80.05	-	-	0.00	0.00	-
BT4				63	4.15		81.5			0.28	-3.00			77.34
BT4				125	3.17		90.2			1.13	5.85			87.04
BT4				250	4.30		95.8			2.84	8.60			91.49
BT4				500	-1.16		98.3			5.39	14.00			99.44
BT4				1000	2.23		97.8			10.49	5.00			95.54
BT4				2000	-13.48		94.1			27.51	0.00			107.56
BT4				4000	-85.68		87.4			93.01	0.00			173.06
BT4				8000	-334.31		77.5			331.77	0.00			411.82
BT5	3 177	3 232			10.35	2.00	103.2	0.00	81.19	-	-	0.00	0.00	-
BT5				63	2.98		81.5			0.32	-3.00			78.51
BT5				125	1.87		90.2			1.29	5.85			88.33
BT5				250	2.76		95.8			3.23	8.60			93.02
BT5				500	-3.05		98.3			6.14	14.00			101.33
BT5				1000	-0.37		97.8			11.96	5.00			98.15
BT5				2000	-18.46		94.1			31.35	0.00			112.54
BT5				4000	-99.82		87.4			106.01	0.00			187.20
BT5				8000	-381.82		77.5			378.14	0.00			459.33
BT6	3 802	3 841			8.39	2.00	103.2	0.00	82.69	-	-	0.00	0.00	-
BT6				63	1.77		81.5			0.38	-3.35			79.72
BT6				125	0.13		90.2			1.54	5.85			90.07
BT6				250	0.66		95.8			3.84	8.60			95.13
BT6				500	-5.71		98.3			7.30	14.00			103.99
BT6				1000	-4.12		97.8			14.21	5.00			101.90
BT6				2000	-25.87		94.1			37.26	0.00			119.95
BT6				4000	-121.30		87.4			125.99	0.00			208.67
BT6				8000	-454.58		77.5			449.40	0.00			532.09
BT7	4 133	4 169			7.49	2.00	103.2	0.00	83.40	-	-	0.00	0.00	-
BT7				63	1.23		81.5			0.42	-3.56			80.26
BT7				125	-0.71		90.2			1.67	5.85			90.92
BT7				250	-0.38		95.8			4.17	8.60			96.17
BT7				500	-7.04		98.3			7.92	14.00			105.32
BT7				1000	-6.05		97.8			15.43	5.00			103.83
BT7				2000	-29.76		94.1			40.44	0.00			123.84
BT7				4000	-132.77		87.4			136.75	0.00			220.15
BT7				8000	-493.67		77.5			487.78	0.00			571.18
Sum					20.74									
Sum				63	40.98									

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## DECIBEL - Detailed results

**Calculation:** NOTTURNO **Noise calculation model:** ISO 9613-2 General

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### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
Sum				125	29.86									
Sum				250	23.58									
Sum				500	12.91									
Sum				1000	13.61									
Sum				2000	-0.82									
Sum				4000	-59.87									
Sum				8000	-252.82									

- Data undefined due to calculation with octave data

Wind speed: 8.0 m/s

### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT1		2 292	2 336	63	17.13	2.00	106.0	0.00	78.37	-	-	0.00	0.00	-
BT1				125	8.79		84.4			0.23	-3.00			75.60
BT1				250	7.95		93.1			0.93	5.85			85.15
BT1				500	9.35		98.7			2.34	8.60			89.31
BT1				1000	4.34		101.1			4.44	14.00			96.81
BT1				2000	8.50		100.5			8.64	5.00			92.02
BT1				4000	-4.25		96.8			22.66	0.00			101.03
BT1				8000	-65.03		90.0			76.63	0.00			155.01
BT1					-271.73		80.0			273.36	0.00			351.73
BT2		2 112	2 186	63	17.93	2.00	106.0	0.00	77.79	-	-	0.00	0.00	-
BT2				125	9.38		84.4			0.22	-3.00			75.01
BT2				250	8.59		93.1			0.87	5.85			84.51
BT2				500	10.08		98.7			2.19	8.60			88.58
BT2				1000	5.20		101.1			4.15	14.00			95.94
BT2				2000	9.64		100.5			8.09	5.00			90.88
BT2				4000	-2.21		96.8			21.20	0.00			98.99
BT2				8000	-59.50		90.0			71.69	0.00			149.48
BT2					-253.50		80.0			255.71	0.00			333.50
BT3		2 507	2 562	63	16.02	2.00	106.0	0.00	79.17	-	-	0.00	0.00	-
BT3				125	7.96		84.4			0.26	-3.00			76.43
BT3				250	7.06		93.1			1.02	5.85			86.05
BT3				500	8.32		98.7			2.56	8.60			90.33
BT3				1000	3.11		101.1			4.87	14.00			98.04
BT3				2000	6.86		100.5			9.48	5.00			93.65
BT3				4000	-7.24		96.8			24.85	0.00			104.02
BT3				8000	-73.23		90.0			84.04	0.00			163.21
BT3					-298.94		80.0			299.77	0.00			378.94
BT4		2 788	2 836	63	14.79	2.00	106.0	0.00	80.05	-	-	0.00	0.00	-
BT4				125	7.05		84.4			0.28	-3.00			77.34
BT4				250	6.07		93.1			1.13	5.85			87.04
BT4				500	7.16		98.7			2.84	8.60			91.49
BT4				1000	1.70		101.1			5.39	14.00			99.44
BT4				2000	4.97		100.5			10.49	5.00			95.54
BT4				4000	-10.78		96.8			27.51	0.00			107.56
BT4				8000	-83.08		90.0			93.01	0.00			173.06
BT4					-331.82		80.0			331.77	0.00			411.82
BT5		3 177	3 232	63	13.22	2.00	106.0	0.00	81.19	-	-	0.00	0.00	-
BT5				125	5.88		84.4			0.32	-3.00			78.51
BT5				250	4.77		93.1			1.29	5.85			88.33
BT5				500	5.63		98.7			3.23	8.60			93.02
BT5				1000	-0.18		101.1			6.14	14.00			101.33
BT5				2000	2.37		100.5			11.96	5.00			98.15
BT5				4000	-15.76		96.8			31.35	0.00			112.54
BT5				8000	-97.22		90.0			106.01	0.00			187.20
BT5					-379.33		80.0			378.14	0.00			459.33
BT6		3 802	3 841	63	11.26	2.00	106.0	0.00	82.69	-	-	0.00	0.00	-
BT6				125	4.67		84.4			0.38	-3.35			79.72
BT6				250	3.03		93.1			1.54	5.85			90.07
BT6				500	3.52		98.7			3.84	8.60			95.13
BT6					-2.84		101.1			7.30	14.00			103.99

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## DECIBEL - Detailed results

**Calculation:** NOTTURNO **Noise calculation model:** ISO 9613-2 General

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### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT6				1000	-1.39		100.5			14.21	5.00			101.90
BT6				2000	-23.17		96.8			37.26	0.00			119.95
BT6				4000	-118.70		90.0			125.99	0.00			208.67
BT6				8000	-452.09		80.0			449.40	0.00			532.09
BT7		4 133	4 169		10.37	2.00	106.0	0.00	83.40	-	-	0.00	0.00	-
BT7				63	4.13		84.4			0.42	-3.56			80.26
BT7				125	2.19		93.1			1.67	5.85			90.92
BT7				250	2.48		98.7			4.17	8.60			96.17
BT7				500	-4.18		101.1			7.92	14.00			105.32
BT7				1000	-3.31		100.5			15.43	5.00			103.83
BT7				2000	-27.06		96.8			40.44	0.00			123.84
BT7				4000	-130.17		90.0			136.75	0.00			220.15
BT7				8000	-491.18		80.0			487.78	0.00			571.18
Sum					23.60									
Sum				63	43.88									
Sum				125	32.76									
Sum				250	26.45									
Sum				500	15.77									
Sum				1000	16.34									
Sum				2000	1.88									
Sum				4000	-57.27									
Sum				8000	-250.33									

- Data undefined due to calculation with octave data

Wind speed: 9.0 m/s

### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT1		2 292	2 336		18.07	2.00	106.9	0.00	78.37	-	-	0.00	0.00	-
BT1				63	9.79		85.4			0.23	-3.00			75.60
BT1				125	8.90		94.1			0.93	5.85			85.15
BT1				250	10.28		99.6			2.34	8.60			89.31
BT1				500	5.24		102.0			4.44	14.00			96.81
BT1				1000	9.40		101.4			8.64	5.00			92.02
BT1				2000	-3.45		97.6			22.66	0.00			101.03
BT1				4000	-64.24		90.8			76.63	0.00			155.01
BT1				8000	-271.06		80.7			273.36	0.00			351.73
BT2		2 112	2 186		18.87	2.00	106.9	0.00	77.79	-	-	0.00	0.00	-
BT2				63	10.38		85.4			0.22	-3.00			75.01
BT2				125	9.54		94.1			0.87	5.85			84.51
BT2				250	11.01		99.6			2.19	8.60			88.58
BT2				500	6.10		102.0			4.15	14.00			95.94
BT2				1000	10.54		101.4			8.09	5.00			90.88
BT2				2000	-1.41		97.6			21.20	0.00			98.99
BT2				4000	-58.71		90.8			71.69	0.00			149.48
BT2				8000	-252.82		80.7			255.71	0.00			333.50
BT3		2 507	2 562		16.96	2.00	106.9	0.00	79.17	-	-	0.00	0.00	-
BT3				63	8.96		85.4			0.26	-3.00			76.43
BT3				125	8.01		94.1			1.02	5.85			86.05
BT3				250	9.25		99.6			2.56	8.60			90.33
BT3				500	4.01		102.0			4.87	14.00			98.04
BT3				1000	7.76		101.4			9.48	5.00			93.65
BT3				2000	-6.44		97.6			24.85	0.00			104.02
BT3				4000	-72.44		90.8			84.04	0.00			163.21
BT3				8000	-298.26		80.7			299.77	0.00			378.94
BT4		2 788	2 836		15.74	2.00	106.9	0.00	80.05	-	-	0.00	0.00	-
BT4				63	8.05		85.4			0.28	-3.00			77.34
BT4				125	7.02		94.1			1.13	5.85			87.04
BT4				250	8.10		99.6			2.84	8.60			91.49
BT4				500	2.60		102.0			5.39	14.00			99.44
BT4				1000	5.87		101.4			10.49	5.00			95.54
BT4				2000	-9.98		97.6			27.51	0.00			107.56
BT4				4000	-82.30		90.8			93.01	0.00			173.06

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## DECIBEL - Detailed results

**Calculation:** NOTTURNO **Noise calculation model:** ISO 9613-2 General

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### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT4				8000	<b>-331.15</b>		80.7			331.77	0.00			411.82
BT5		3 177	3 232		<b>14.17</b>	2.00	106.9	0.00	81.19	-	-	0.00	0.00	-
BT5				63	<b>6.88</b>		85.4			0.32	-3.00			78.51
BT5				125	<b>5.72</b>		94.1			1.29	5.85			88.33
BT5				250	<b>6.56</b>		99.6			3.23	8.60			93.02
BT5				500	<b>0.72</b>		102.0			6.14	14.00			101.33
BT5				1000	<b>3.27</b>		101.4			11.96	5.00			98.15
BT5				2000	<b>-14.96</b>		97.6			31.35	0.00			112.54
BT5				4000	<b>-96.43</b>		90.8			106.01	0.00			187.20
BT5				8000	<b>-378.65</b>		80.7			378.14	0.00			459.33
BT6		3 802	3 841		<b>12.22</b>	2.00	106.9	0.00	82.69	-	-	0.00	0.00	-
BT6				63	<b>5.67</b>		85.4			0.38	-3.35			79.72
BT6				125	<b>3.98</b>		94.1			1.54	5.85			90.07
BT6				250	<b>4.46</b>		99.6			3.84	8.60			95.13
BT6				500	<b>-1.94</b>		102.0			7.30	14.00			103.99
BT6				1000	<b>-0.49</b>		101.4			14.21	5.00			101.90
BT6				2000	<b>-22.37</b>		97.6			37.26	0.00			119.95
BT6				4000	<b>-117.91</b>		90.8			125.99	0.00			208.67
BT6				8000	<b>-451.41</b>		80.7			449.40	0.00			532.09
BT7		4 133	4 169		<b>11.33</b>	2.00	106.9	0.00	83.40	-	-	0.00	0.00	-
BT7				63	<b>5.13</b>		85.4			0.42	-3.56			80.26
BT7				125	<b>3.13</b>		94.1			1.67	5.85			90.92
BT7				250	<b>3.42</b>		99.6			4.17	8.60			96.17
BT7				500	<b>-3.28</b>		102.0			7.92	14.00			105.32
BT7				1000	<b>-2.41</b>		101.4			15.43	5.00			103.83
BT7				2000	<b>-26.26</b>		97.6			40.44	0.00			123.84
BT7				4000	<b>-129.38</b>		90.8			136.75	0.00			220.15
BT7				8000	<b>-490.51</b>		80.7			487.78	0.00			571.18
Sum					<b>24.54</b>									
Sum				63	<b>44.88</b>									
Sum				125	<b>33.71</b>									
Sum				250	<b>27.38</b>									
Sum				500	<b>16.67</b>									
Sum				1000	<b>17.24</b>									
Sum				2000	<b>2.68</b>									
Sum				4000	<b>-56.48</b>									
Sum				8000	<b>-249.66</b>									

- Data undefined due to calculation with octave data

Wind speed: 10.0 m/s

### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT1		2 292	2 336		<b>18.03</b>	2.00	106.9	0.00	78.37	-	-	0.00	0.00	-
BT1				63	<b>9.69</b>		85.3			0.23	-3.00			75.60
BT1				125	<b>8.87</b>		94.0			0.93	5.85			85.15
BT1				250	<b>10.25</b>		99.6			2.34	8.60			89.31
BT1				500	<b>5.24</b>		102.0			4.44	14.00			96.81
BT1				1000	<b>9.40</b>		101.4			8.64	5.00			92.02
BT1				2000	<b>-3.35</b>		97.7			22.66	0.00			101.03
BT1				4000	<b>-64.14</b>		90.9			76.63	0.00			155.01
BT1				8000	<b>-270.92</b>		80.8			273.36	0.00			351.73
BT2		2 112	2 186		<b>18.83</b>	2.00	106.9	0.00	77.79	-	-	0.00	0.00	-
BT2				63	<b>10.28</b>		85.3			0.22	-3.00			75.01
BT2				125	<b>9.51</b>		94.0			0.87	5.85			84.51
BT2				250	<b>10.98</b>		99.6			2.19	8.60			88.58
BT2				500	<b>6.10</b>		102.0			4.15	14.00			95.94
BT2				1000	<b>10.54</b>		101.4			8.09	5.00			90.88
BT2				2000	<b>-1.31</b>		97.7			21.20	0.00			98.99
BT2				4000	<b>-58.61</b>		90.9			71.69	0.00			149.48
BT2				8000	<b>-252.69</b>		80.8			255.71	0.00			333.50
BT3		2 507	2 562		<b>16.92</b>	2.00	106.9	0.00	79.17	-	-	0.00	0.00	-
BT3				63	<b>8.86</b>		85.3			0.26	-3.00			76.43

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## DECIBEL - Detailed results

**Calculation:** NOTTURNO **Noise calculation model:** ISO 9613-2 General

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### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT3				125	7.98		94.0			1.02	5.85			86.05
BT3				250	9.22		99.6			2.56	8.60			90.33
BT3				500	4.01		102.0			4.87	14.00			98.04
BT3				1000	7.76		101.4			9.48	5.00			93.65
BT3				2000	-6.34		97.7			24.85	0.00			104.02
BT3				4000	-72.34		90.9			84.04	0.00			163.21
BT3				8000	-298.13		80.8			299.77	0.00			378.94
BT4		2 788	2 836		15.70	2.00	106.9	0.00	80.05	-	-	0.00	0.00	-
BT4				63	7.95		85.3			0.28	-3.00			77.34
BT4				125	6.98		94.0			1.13	5.85			87.04
BT4				250	8.06		99.6			2.84	8.60			91.49
BT4				500	2.60		102.0			5.39	14.00			99.44
BT4				1000	5.87		101.4			10.49	5.00			95.54
BT4				2000	-9.88		97.7			27.51	0.00			107.56
BT4				4000	-82.20		90.9			93.01	0.00			173.06
BT4				8000	-331.01		80.8			331.77	0.00			411.82
BT5		3 177	3 232		14.12	2.00	106.9	0.00	81.19	-	-	0.00	0.00	-
BT5				63	6.78		85.3			0.32	-3.00			78.51
BT5				125	5.69		94.0			1.29	5.85			88.33
BT5				250	6.53		99.6			3.23	8.60			93.02
BT5				500	0.72		102.0			6.14	14.00			101.33
BT5				1000	3.27		101.4			11.96	5.00			98.15
BT5				2000	-14.86		97.7			31.35	0.00			112.54
BT5				4000	-96.33		90.9			106.01	0.00			187.20
BT5				8000	-378.52		80.8			378.14	0.00			459.33
BT6		3 802	3 841		12.17	2.00	106.9	0.00	82.69	-	-	0.00	0.00	-
BT6				63	5.57		85.3			0.38	-3.35			79.72
BT6				125	3.95		94.0			1.54	5.85			90.07
BT6				250	4.42		99.6			3.84	8.60			95.13
BT6				500	-1.94		102.0			7.30	14.00			103.99
BT6				1000	-0.49		101.4			14.21	5.00			101.90
BT6				2000	-22.27		97.7			37.26	0.00			119.95
BT6				4000	-117.81		90.9			125.99	0.00			208.67
BT6				8000	-451.28		80.8			449.40	0.00			532.09
BT7		4 133	4 169		11.27	2.00	106.9	0.00	83.40	-	-	0.00	0.00	-
BT7				63	5.03		85.3			0.42	-3.56			80.26
BT7				125	3.10		94.0			1.67	5.85			90.92
BT7				250	3.38		99.6			4.17	8.60			96.17
BT7				500	-3.28		102.0			7.92	14.00			105.32
BT7				1000	-2.41		101.4			15.43	5.00			103.83
BT7				2000	-26.16		97.7			40.44	0.00			123.84
BT7				4000	-129.28		90.9			136.75	0.00			220.15
BT7				8000	-490.37		80.8			487.78	0.00			571.18
Sum					24.50									
Sum				63	44.78									
Sum				125	33.68									
Sum				250	27.35									
Sum				500	16.67									
Sum				1000	17.24									
Sum				2000	2.78									
Sum				4000	-56.38									
Sum				8000	-249.52									

- Data undefined due to calculation with octave data

Project:

**230515 Modello Borgo Taro per acustica**

Licensed user:

**MORI MANTOVANI ASSOCIATI SRL**

VIA STRASBURGO 18A

IT-43123 PARMA

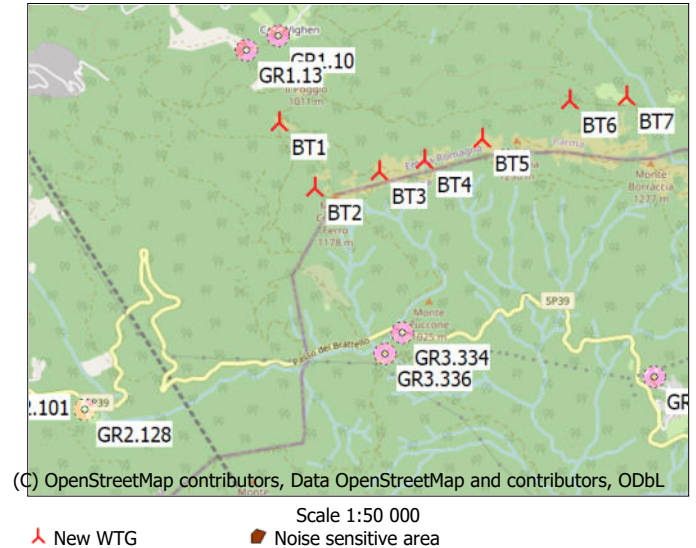
+390521239944

GIULIO BARTOLI / giulio@morimantovani.it

Calculated:

02/06/2023 13:09/3.6.366

## DECIBEL - Detailed results

**Calculation:** NOTTURNO **Noise calculation model:** ISO 9613-2 General

### Noise sensitive area: GR3.334 Passo del Brattello

Wind speed: 3.0 m/s

#### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT1		1 612	1 625		<b>8.34</b>	2.00	93.2	0.00	75.22	-	-	0.00	0.00	-
BT1				63	<b>-1.86</b>		70.5			0.16	-3.00			72.38
BT1				125	<b>-2.34</b>		79.4			0.65	5.85			81.71
BT1				250	<b>-0.24</b>		85.2			1.63	8.60			85.44
BT1				500	<b>-4.22</b>		88.1			3.09	14.00			92.30
BT1				1000	<b>1.76</b>		88.0			6.01	5.00			86.23
BT1				2000	<b>-6.15</b>		84.8			15.76	0.00			90.98
BT1				4000	<b>-49.86</b>		78.7			53.30	0.00			128.52
BT1				8000	<b>-195.90</b>		69.5			190.13	0.00			265.35
BT2		1 121	1 163		<b>12.47</b>	2.00	93.2	0.00	72.31	-	-	0.00	0.00	-
BT2				63	<b>1.09</b>		70.5			0.12	-3.00			69.43
BT2				125	<b>0.92</b>		79.4			0.47	5.68			78.46
BT2				250	<b>3.13</b>		85.2			1.16	8.60			82.08
BT2				500	<b>-0.44</b>		88.1			2.21	14.00			88.52
BT2				1000	<b>6.38</b>		88.0			4.30	5.00			81.62
BT2				2000	<b>1.23</b>		84.8			11.28	0.00			83.60
BT2				4000	<b>-31.81</b>		78.7			38.15	0.00			110.47
BT2				8000	<b>-138.96</b>		69.5			136.10	0.00			208.42
BT3		1 079	1 114		<b>13.00</b>	2.00	93.2	0.00	71.94	-	-	0.00	0.00	-
BT3				63	<b>1.47</b>		70.5			0.11	-3.00			69.05
BT3				125	<b>1.36</b>		79.4			0.45	5.63			78.02
BT3				250	<b>3.55</b>		85.2			1.11	8.60			81.65
BT3				500	<b>0.03</b>		88.1			2.12	14.00			88.06
BT3				1000	<b>6.93</b>		88.0			4.12	5.00			81.06
BT3				2000	<b>2.08</b>		84.8			10.81	0.00			82.75
BT3				4000	<b>-29.82</b>		78.7			36.54	0.00			108.48
BT3				8000	<b>-132.84</b>		69.5			130.36	0.00			202.30
BT4		1 152	1 183		<b>12.27</b>	2.00	93.2	0.00	72.46	-	-	0.00	0.00	-
BT4				63	<b>0.94</b>		70.5			0.12	-3.00			69.58
BT4				125	<b>0.73</b>		79.4			0.47	5.71			78.64
BT4				250	<b>2.97</b>		85.2			1.18	8.60			82.24
BT4				500	<b>-0.62</b>		88.1			2.25	14.00			88.71
BT4				1000	<b>6.16</b>		88.0			4.38	5.00			81.84
BT4				2000	<b>0.90</b>		84.8			11.47	0.00			83.93
BT4				4000	<b>-32.60</b>		78.7			38.80	0.00			111.26
BT4				8000	<b>-141.40</b>		69.5			138.39	0.00			210.85
BT5		1 383	1 425		<b>9.97</b>	2.00	93.2	0.00	74.07	-	-	0.00	0.00	-
BT5				63	<b>-0.70</b>		70.5			0.14	-3.00			71.22
BT5				125	<b>-1.09</b>		79.4			0.57	5.82			80.47

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## DECIBEL - Detailed results

**Calculation:** NOTTURNO **Noise calculation model:** ISO 9613-2 General

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### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT5				250	1.11		85.2			1.42	8.60			84.10
BT5				500	-2.69		88.1			2.71	14.00			90.78
BT5				1000	3.65		88.0			5.27	5.00			84.35
BT5				2000	-3.06		84.8			13.82	0.00			87.89
BT5				4000	-42.15		78.7			46.73	0.00			120.81
BT5				8000	-171.31		69.5			166.69	0.00			240.77
BT6		1 892	1 915		6.30	2.00	93.2	0.00	76.64	-	-	0.00	0.00	-
BT6				63	-3.32		70.5			0.19	-3.00			73.83
BT6				125	-3.88		79.4			0.77	5.85			83.26
BT6				250	-1.95		85.2			1.92	8.60			87.16
BT6				500	-6.19		88.1			3.64	14.00			94.28
BT6				1000	-0.73		88.0			7.09	5.00			88.73
BT6				2000	-10.39		84.8			18.58	0.00			95.22
BT6				4000	-60.80		78.7			62.81	0.00			139.46
BT6				8000	-231.25		69.5			224.06	0.00			300.70
BT7		2 147	2 168		4.74	2.00	93.2	0.00	77.72	-	-	0.00	0.00	-
BT7				63	-4.42		70.5			0.22	-3.00			74.94
BT7				125	-5.06		79.4			0.87	5.85			84.44
BT7				250	-3.28		85.2			2.17	8.60			88.49
BT7				500	-7.76		88.1			4.12	14.00			95.84
BT7				1000	-2.75		88.0			8.02	5.00			90.75
BT7				2000	-13.93		84.8			21.03	0.00			98.76
BT7				4000	-70.19		78.7			71.12	0.00			148.84
BT7				8000	-261.97		69.5			253.70	0.00			331.42
Sum					18.95									
Sum				63	36.17									
Sum				125	25.79									
Sum				250	20.44									
Sum				500	11.33									
Sum				1000	14.70									
Sum				2000	7.83									
Sum				4000	-25.34									
Sum				8000	-128.33									

- Data undefined due to calculation with octave data

Wind speed: 4.0 m/s

### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT1		1 612	1 625		8.85	2.00	93.6	0.00	75.22	-	-	0.00	0.00	-
BT1				63	-1.09		71.3			0.16	-3.00			72.38
BT1				125	-1.64		80.1			0.65	5.85			81.71
BT1				250	0.36		85.8			1.63	8.60			85.44
BT1				500	-3.72		88.6			3.09	14.00			92.30
BT1				1000	2.07		88.3			6.01	5.00			86.23
BT1				2000	-6.00		85.0			15.76	0.00			90.98
BT1				4000	-49.79		78.7			53.30	0.00			128.52
BT1				8000	-195.94		69.4			190.13	0.00			265.35
BT2		1 121	1 163		12.93	2.00	93.6	0.00	72.31	-	-	0.00	0.00	-
BT2				63	1.86		71.3			0.12	-3.00			69.43
BT2				125	1.62		80.1			0.47	5.68			78.46
BT2				250	3.73		85.8			1.16	8.60			82.08
BT2				500	0.06		88.6			2.21	14.00			88.52
BT2				1000	6.69		88.3			4.30	5.00			81.62
BT2				2000	1.38		85.0			11.28	0.00			83.60
BT2				4000	-31.74		78.7			38.15	0.00			110.47
BT2				8000	-139.01		69.4			136.10	0.00			208.42
BT3		1 079	1 114		13.46	2.00	93.6	0.00	71.94	-	-	0.00	0.00	-
BT3				63	2.24		71.3			0.11	-3.00			69.05
BT3				125	2.06		80.1			0.45	5.63			78.02
BT3				250	4.15		85.8			1.11	8.60			81.65
BT3				500	0.53		88.6			2.12	14.00			88.06
BT3				1000	7.24		88.3			4.12	5.00			81.06

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## DECIBEL - Detailed results

**Calculation:** NOTTURNO **Noise calculation model:** ISO 9613-2 General

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### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT3				2000	2.23		85.0			10.81	0.00			82.75
BT3				4000	-29.76		78.7			36.54	0.00			108.48
BT3				8000	-132.89		69.4			130.36	0.00			202.30
BT4		1 152	1 183		12.73	2.00	93.6	0.00	72.46	-	-	0.00	0.00	-
BT4				63	1.71		71.3			0.12	-3.00			69.58
BT4				125	1.43		80.1			0.47	5.71			78.64
BT4				250	3.57		85.8			1.18	8.60			82.24
BT4				500	-0.12		88.6			2.25	14.00			88.71
BT4				1000	6.47		88.3			4.38	5.00			81.84
BT4				2000	1.04		85.0			11.47	0.00			83.93
BT4				4000	-32.53		78.7			38.80	0.00			111.26
BT4				8000	-141.45		69.4			138.39	0.00			210.85
BT5		1 383	1 425		10.46	2.00	93.6	0.00	74.07	-	-	0.00	0.00	-
BT5				63	0.07		71.3			0.14	-3.00			71.22
BT5				125	-0.39		80.1			0.57	5.82			80.47
BT5				250	1.71		85.8			1.42	8.60			84.10
BT5				500	-2.19		88.6			2.71	14.00			90.78
BT5				1000	3.96		88.3			5.27	5.00			84.35
BT5				2000	-2.92		85.0			13.82	0.00			87.89
BT5				4000	-42.08		78.7			46.73	0.00			120.81
BT5				8000	-171.36		69.4			166.69	0.00			240.77
BT6		1 892	1 915		6.83	2.00	93.6	0.00	76.64	-	-	0.00	0.00	-
BT6				63	-2.54		71.3			0.19	-3.00			73.83
BT6				125	-3.18		80.1			0.77	5.85			83.26
BT6				250	-1.35		85.8			1.92	8.60			87.16
BT6				500	-5.69		88.6			3.64	14.00			94.28
BT6				1000	-0.43		88.3			7.09	5.00			88.73
BT6				2000	-10.24		85.0			18.58	0.00			95.22
BT6				4000	-60.73		78.7			62.81	0.00			139.46
BT6				8000	-231.30		69.4			224.06	0.00			300.70
BT7		2 147	2 168		5.30	2.00	93.6	0.00	77.72	-	-	0.00	0.00	-
BT7				63	-3.65		71.3			0.22	-3.00			74.94
BT7				125	-4.36		80.1			0.87	5.85			84.44
BT7				250	-2.68		85.8			2.17	8.60			88.49
BT7				500	-7.26		88.6			4.12	14.00			95.84
BT7				1000	-2.44		88.3			8.02	5.00			90.75
BT7				2000	-13.78		85.0			21.03	0.00			98.76
BT7				4000	-70.12		78.7			71.12	0.00			148.84
BT7				8000	-262.02		69.4			253.70	0.00			331.42
Sum					19.42									
Sum				63	36.94									
Sum				125	26.49									
Sum				250	21.04									
Sum				500	11.83									
Sum				1000	15.00									
Sum				2000	7.97									
Sum				4000	-25.27									
Sum				8000	-128.38									

- Data undefined due to calculation with octave data

Wind speed: 5.0 m/s

### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT1		1 612	1 625		11.87	2.00	96.5	0.00	75.22	-	-	0.00	0.00	-
BT1				63	2.21		74.6			0.16	-3.00			72.38
BT1				125	1.59		83.3			0.65	5.85			81.71
BT1				250	3.49		88.9			1.63	8.60			85.44
BT1				500	-0.75		91.6			3.09	14.00			92.30
BT1				1000	4.87		91.1			6.01	5.00			86.23
BT1				2000	-3.36		87.6			15.76	0.00			90.98
BT1				4000	-47.38		81.1			53.30	0.00			128.52
BT1				8000	-193.85		71.5			190.13	0.00			265.35

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## DECIBEL - Detailed results

**Calculation:** NOTTURNO **Noise calculation model:** ISO 9613-2 General

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### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT2		1 121	1 163		<b>15.91</b>	2.00	96.5	0.00	72.31	-	-	0.00	0.00	-
BT2				63	<b>5.16</b>		74.6			0.12	-3.00			69.43
BT2				125	<b>4.85</b>		83.3			0.47	5.68			78.46
BT2				250	<b>6.85</b>		88.9			1.16	8.60			82.08
BT2				500	<b>3.03</b>		91.6			2.21	14.00			88.52
BT2				1000	<b>9.49</b>		91.1			4.30	5.00			81.62
BT2				2000	<b>4.03</b>		87.6			11.28	0.00			83.60
BT2				4000	<b>-29.33</b>		81.1			38.15	0.00			110.47
BT2				8000	<b>-136.92</b>		71.5			136.10	0.00			208.42
BT3	1 079		1 114		<b>16.43</b>	2.00	96.5	0.00	71.94	-	-	0.00	0.00	-
BT3				63	<b>5.54</b>		74.6			0.11	-3.00			69.05
BT3				125	<b>5.29</b>		83.3			0.45	5.63			78.02
BT3				250	<b>7.28</b>		88.9			1.11	8.60			81.65
BT3				500	<b>3.50</b>		91.6			2.12	14.00			88.06
BT3				1000	<b>10.04</b>		91.1			4.12	5.00			81.06
BT3				2000	<b>4.88</b>		87.6			10.81	0.00			82.75
BT3				4000	<b>-27.35</b>		81.1			36.54	0.00			108.48
BT3				8000	<b>-130.80</b>		71.5			130.36	0.00			202.30
BT4	1 152		1 183		<b>15.71</b>	2.00	96.5	0.00	72.46	-	-	0.00	0.00	-
BT4				63	<b>5.01</b>		74.6			0.12	-3.00			69.58
BT4				125	<b>4.66</b>		83.3			0.47	5.71			78.64
BT4				250	<b>6.69</b>		88.9			1.18	8.60			82.24
BT4				500	<b>2.84</b>		91.6			2.25	14.00			88.71
BT4				1000	<b>9.27</b>		91.1			4.38	5.00			81.84
BT4				2000	<b>3.69</b>		87.6			11.47	0.00			83.93
BT4				4000	<b>-30.12</b>		81.1			38.80	0.00			111.26
BT4				8000	<b>-139.36</b>		71.5			138.39	0.00			210.85
BT5	1 383		1 425		<b>13.46</b>	2.00	96.5	0.00	74.07	-	-	0.00	0.00	-
BT5				63	<b>3.37</b>		74.6			0.14	-3.00			71.22
BT5				125	<b>2.84</b>		83.3			0.57	5.82			80.47
BT5				250	<b>4.83</b>		88.9			1.42	8.60			84.10
BT5				500	<b>0.77</b>		91.6			2.71	14.00			90.78
BT5				1000	<b>6.76</b>		91.1			5.27	5.00			84.35
BT5				2000	<b>-0.27</b>		87.6			13.82	0.00			87.89
BT5				4000	<b>-39.67</b>		81.1			46.73	0.00			120.81
BT5				8000	<b>-169.27</b>		71.5			166.69	0.00			240.77
BT6	1 892		1 915		<b>9.88</b>	2.00	96.5	0.00	76.64	-	-	0.00	0.00	-
BT6				63	<b>0.76</b>		74.6			0.19	-3.00			73.83
BT6				125	<b>0.05</b>		83.3			0.77	5.85			83.26
BT6				250	<b>1.77</b>		88.9			1.92	8.60			87.16
BT6				500	<b>-2.73</b>		91.6			3.64	14.00			94.28
BT6				1000	<b>2.37</b>		91.1			7.09	5.00			88.73
BT6				2000	<b>-7.60</b>		87.6			18.58	0.00			95.22
BT6				4000	<b>-58.32</b>		81.1			62.81	0.00			139.46
BT6				8000	<b>-229.21</b>		71.5			224.06	0.00			300.70
BT7	2 147		2 168		<b>8.37</b>	2.00	96.5	0.00	77.72	-	-	0.00	0.00	-
BT7				63	<b>-0.35</b>		74.6			0.22	-3.00			74.94
BT7				125	<b>-1.13</b>		83.3			0.87	5.85			84.44
BT7				250	<b>0.44</b>		88.9			2.17	8.60			88.49
BT7				500	<b>-4.29</b>		91.6			4.12	14.00			95.84
BT7				1000	<b>0.36</b>		91.1			8.02	5.00			90.75
BT7				2000	<b>-11.13</b>		87.6			21.03	0.00			98.76
BT7				4000	<b>-67.71</b>		81.1			71.12	0.00			148.84
BT7				8000	<b>-259.93</b>		71.5			253.70	0.00			331.42
Sum					<b>22.41</b>									
Sum				63	<b>40.24</b>									
Sum				125	<b>29.72</b>									
Sum				250	<b>24.17</b>									
Sum				500	<b>14.79</b>									
Sum				1000	<b>17.80</b>									
Sum				2000	<b>10.62</b>									
Sum				4000	<b>-22.86</b>									
Sum				8000	<b>-126.29</b>									

- Data undefined due to calculation with octave data



## DECIBEL - Detailed results

**Calculation:** NOTTURNO **Noise calculation model:** ISO 9613-2 General

Wind speed: 6.0 m/s

### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT1		1 612	1 625		<b>15.43</b>	2.00	100.0	0.00	75.22	-	-	0.00	0.00	-
BT1				63	<b>5.85</b>		78.2			0.16	-3.00			72.38
BT1				125	<b>5.21</b>		86.9			0.65	5.85			81.71
BT1				250	<b>7.09</b>		92.5			1.63	8.60			85.44
BT1				500	<b>2.78</b>		95.1			3.09	14.00			92.30
BT1				1000	<b>8.35</b>		94.6			6.01	5.00			86.23
BT1				2000	<b>0.02</b>		91.0			15.76	0.00			90.98
BT1				4000	<b>-44.18</b>		84.3			53.30	0.00			128.52
BT1				8000	<b>-190.79</b>		74.6			190.13	0.00			265.35
BT2		1 121	1 163		<b>19.44</b>	2.00	100.0	0.00	72.31	-	-	0.00	0.00	-
BT2				63	<b>8.80</b>		78.2			0.12	-3.00			69.43
BT2				125	<b>8.46</b>		86.9			0.47	5.68			78.46
BT2				250	<b>10.45</b>		92.5			1.16	8.60			82.08
BT2				500	<b>6.56</b>		95.1			2.21	14.00			88.52
BT2				1000	<b>12.96</b>		94.6			4.30	5.00			81.62
BT2				2000	<b>7.40</b>		91.0			11.28	0.00			83.60
BT2				4000	<b>-26.13</b>		84.3			38.15	0.00			110.47
BT2				8000	<b>-133.86</b>		74.6			136.10	0.00			208.42
BT3		1 079	1 114		<b>19.96</b>	2.00	100.0	0.00	71.94	-	-	0.00	0.00	-
BT3				63	<b>9.18</b>		78.2			0.11	-3.00			69.05
BT3				125	<b>8.91</b>		86.9			0.45	5.63			78.02
BT3				250	<b>10.88</b>		92.5			1.11	8.60			81.65
BT3				500	<b>7.03</b>		95.1			2.12	14.00			88.06
BT3				1000	<b>13.51</b>		94.6			4.12	5.00			81.06
BT3				2000	<b>8.25</b>		91.0			10.81	0.00			82.75
BT3				4000	<b>-24.15</b>		84.3			36.54	0.00			108.48
BT3				8000	<b>-127.74</b>		74.6			130.36	0.00			202.30
BT4		1 152	1 183		<b>19.24</b>	2.00	100.0	0.00	72.46	-	-	0.00	0.00	-
BT4				63	<b>8.65</b>		78.2			0.12	-3.00			69.58
BT4				125	<b>8.28</b>		86.9			0.47	5.71			78.64
BT4				250	<b>10.29</b>		92.5			1.18	8.60			82.24
BT4				500	<b>6.38</b>		95.1			2.25	14.00			88.71
BT4				1000	<b>12.74</b>		94.6			4.38	5.00			81.84
BT4				2000	<b>7.07</b>		91.0			11.47	0.00			83.93
BT4				4000	<b>-26.92</b>		84.3			38.80	0.00			111.26
BT4				8000	<b>-136.29</b>		74.6			138.39	0.00			210.85
BT5		1 383	1 425		<b>17.01</b>	2.00	100.0	0.00	74.07	-	-	0.00	0.00	-
BT5				63	<b>7.01</b>		78.2			0.14	-3.00			71.22
BT5				125	<b>6.45</b>		86.9			0.57	5.82			80.47
BT5				250	<b>8.43</b>		92.5			1.42	8.60			84.10
BT5				500	<b>4.30</b>		95.1			2.71	14.00			90.78
BT5				1000	<b>10.23</b>		94.6			5.27	5.00			84.35
BT5				2000	<b>3.11</b>		91.0			13.82	0.00			87.89
BT5				4000	<b>-36.47</b>		84.3			46.73	0.00			120.81
BT5				8000	<b>-166.21</b>		74.6			166.69	0.00			240.77
BT6		1 892	1 915		<b>13.44</b>	2.00	100.0	0.00	76.64	-	-	0.00	0.00	-
BT6				63	<b>4.39</b>		78.2			0.19	-3.00			73.83
BT6				125	<b>3.66</b>		86.9			0.77	5.85			83.26
BT6				250	<b>5.37</b>		92.5			1.92	8.60			87.16
BT6				500	<b>0.80</b>		95.1			3.64	14.00			94.28
BT6				1000	<b>5.85</b>		94.6			7.09	5.00			88.73
BT6				2000	<b>-4.22</b>		91.0			18.58	0.00			95.22
BT6				4000	<b>-55.12</b>		84.3			62.81	0.00			139.46
BT6				8000	<b>-226.14</b>		74.6			224.06	0.00			300.70
BT7		2 147	2 168		<b>11.94</b>	2.00	100.0	0.00	77.72	-	-	0.00	0.00	-
BT7				63	<b>3.29</b>		78.2			0.22	-3.00			74.94
BT7				125	<b>2.48</b>		86.9			0.87	5.85			84.44
BT7				250	<b>4.04</b>		92.5			2.17	8.60			88.49
BT7				500	<b>-0.76</b>		95.1			4.12	14.00			95.84
BT7				1000	<b>3.83</b>		94.6			8.02	5.00			90.75
BT7				2000	<b>-7.75</b>		91.0			21.03	0.00			98.76
BT7				4000	<b>-64.51</b>		84.3			71.12	0.00			148.84
BT7				8000	<b>-256.86</b>		74.6			253.70	0.00			331.42

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## DECIBEL - Detailed results

**Calculation:** NOTTURNO **Noise calculation model:** ISO 9613-2 General

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### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
Sum					<b>25.95</b>									
Sum				63	<b>43.88</b>									
Sum				125	<b>33.33</b>									
Sum				250	<b>27.77</b>									
Sum				500	<b>18.32</b>									
Sum				1000	<b>21.28</b>									
Sum				2000	<b>14.00</b>									
Sum				4000	<b>-19.66</b>									
Sum				8000	<b>-123.23</b>									

- Data undefined due to calculation with octave data

Wind speed: 7.0 m/s

### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT1		1 612	1 625	63	<b>18.66</b>	2.00	103.2	0.00	75.22	-	-	0.00	0.00	-
BT1				125	<b>9.11</b>		81.5			0.16	-3.00			72.38
BT1				250	<b>8.49</b>		90.2			0.65	5.85			81.71
BT1				500	<b>10.34</b>		95.8			1.63	8.60			85.44
BT1				1000	<b>5.98</b>		98.3			3.09	14.00			92.30
BT1				2000	<b>11.55</b>		97.8			6.01	5.00			86.23
BT1				4000	<b>3.10</b>		94.1			15.76	0.00			90.98
BT1				8000	<b>-41.14</b>		87.4			53.30	0.00			128.52
BT1					<b>-187.84</b>		77.5			190.13	0.00			265.35
BT2		1 121	1 163	63	<b>22.66</b>	2.00	103.2	0.00	72.31	-	-	0.00	0.00	-
BT2				125	<b>12.06</b>		81.5			0.12	-3.00			69.43
BT2				250	<b>11.75</b>		90.2			0.47	5.68			78.46
BT2				500	<b>13.71</b>		95.8			1.16	8.60			82.08
BT2				1000	<b>9.76</b>		98.3			2.21	14.00			88.52
BT2				2000	<b>16.16</b>		97.8			4.30	5.00			81.62
BT2				4000	<b>10.48</b>		94.1			11.28	0.00			83.60
BT2				8000	<b>-23.09</b>		87.4			38.15	0.00			110.47
BT2					<b>-130.90</b>		77.5			136.10	0.00			208.42
BT3		1 079	1 114	63	<b>23.17</b>	2.00	103.2	0.00	71.94	-	-	0.00	0.00	-
BT3				125	<b>12.44</b>		81.5			0.11	-3.00			69.05
BT3				250	<b>12.19</b>		90.2			0.45	5.63			78.02
BT3				500	<b>14.13</b>		95.8			1.11	8.60			81.65
BT3				1000	<b>10.23</b>		98.3			2.12	14.00			88.06
BT3				2000	<b>16.71</b>		97.8			4.12	5.00			81.06
BT3				4000	<b>11.33</b>		94.1			10.81	0.00			82.75
BT3				8000	<b>-21.10</b>		87.4			36.54	0.00			108.48
BT3					<b>-124.79</b>		77.5			130.36	0.00			202.30
BT4		1 152	1 183	63	<b>22.46</b>	2.00	103.2	0.00	72.46	-	-	0.00	0.00	-
BT4				125	<b>11.91</b>		81.5			0.12	-3.00			69.58
BT4				250	<b>11.56</b>		90.2			0.47	5.71			78.64
BT4				500	<b>13.54</b>		95.8			1.18	8.60			82.24
BT4				1000	<b>9.58</b>		98.3			2.25	14.00			88.71
BT4				2000	<b>15.94</b>		97.8			4.38	5.00			81.84
BT4				4000	<b>10.15</b>		94.1			11.47	0.00			83.93
BT4				8000	<b>-23.88</b>		87.4			38.80	0.00			111.26
BT4					<b>-133.34</b>		77.5			138.39	0.00			210.85
BT5		1 383	1 425	63	<b>20.24</b>	2.00	103.2	0.00	74.07	-	-	0.00	0.00	-
BT5				125	<b>10.27</b>		81.5			0.14	-3.00			71.22
BT5				250	<b>9.74</b>		90.2			0.57	5.82			80.47
BT5				500	<b>11.69</b>		95.8			1.42	8.60			84.10
BT5				1000	<b>7.50</b>		98.3			2.71	14.00			90.78
BT5				2000	<b>13.43</b>		97.8			5.27	5.00			84.35
BT5				4000	<b>6.19</b>		94.1			13.82	0.00			87.89
BT5				8000	<b>-33.43</b>		87.4			46.73	0.00			120.81
BT5					<b>-163.26</b>		77.5			166.69	0.00			240.77
BT6		1 892	1 915	63	<b>16.68</b>	2.00	103.2	0.00	76.64	-	-	0.00	0.00	-
BT6				125	<b>7.66</b>		81.5			0.19	-3.00			73.83
BT6					<b>6.95</b>		90.2			0.77	5.85			83.26

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## DECIBEL - Detailed results

**Calculation:** NOTTURNO **Noise calculation model:** ISO 9613-2 General

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### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT6				250	8.63		95.8			1.92	8.60			87.16
BT6				500	4.00		98.3			3.64	14.00			94.28
BT6				1000	9.05		97.8			7.09	5.00			88.73
BT6				2000	-1.14		94.1			18.58	0.00			95.22
BT6				4000	-52.08		87.4			62.81	0.00			139.46
BT6				8000	-223.19		77.5			224.06	0.00			300.70
BT7	2 147		2 168		15.18	2.00	103.2	0.00	77.72	-	-	0.00	0.00	-
BT7				63	6.55		81.5			0.22	-3.00			74.94
BT7				125	5.77		90.2			0.87	5.85			84.44
BT7				250	7.29		95.8			2.17	8.60			88.49
BT7				500	2.44		98.3			4.12	14.00			95.84
BT7				1000	7.03		97.8			8.02	5.00			90.75
BT7				2000	-4.68		94.1			21.03	0.00			98.76
BT7				4000	-61.47		87.4			71.12	0.00			148.84
BT7				8000	-253.91		77.5			253.70	0.00			331.42
Sum					29.17									
Sum				63	47.14									
Sum				125	36.62									
Sum				250	31.02									
Sum				500	21.52									
Sum				1000	24.48									
Sum				2000	17.08									
Sum				4000	-16.62									
Sum				8000	-120.27									

- Data undefined due to calculation with octave data

Wind speed: 8.0 m/s

### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT1		1 612	1 625		21.49	2.00	106.0	0.00	75.22	-	-	0.00	0.00	-
BT1				63	12.01		84.4			0.16	-3.00			72.38
BT1				125	11.39		93.1			0.65	5.85			81.71
BT1				250	13.21		98.7			1.63	8.60			85.44
BT1				500	8.84		101.1			3.09	14.00			92.30
BT1				1000	14.28		100.5			6.01	5.00			86.23
BT1				2000	5.80		96.8			15.76	0.00			90.98
BT1				4000	-38.54		90.0			53.30	0.00			128.52
BT1				8000	-185.35		80.0			190.13	0.00			265.35
BT2	1 121		1 163		25.48	2.00	106.0	0.00	72.31	-	-	0.00	0.00	-
BT2				63	14.96		84.4			0.12	-3.00			69.43
BT2				125	14.65		93.1			0.47	5.68			78.46
BT2				250	16.58		98.7			1.16	8.60			82.08
BT2				500	12.62		101.1			2.21	14.00			88.52
BT2				1000	18.90		100.5			4.30	5.00			81.62
BT2				2000	13.18		96.8			11.28	0.00			83.60
BT2				4000	-20.49		90.0			38.15	0.00			110.47
BT2				8000	-128.41		80.0			136.10	0.00			208.42
BT3	1 079		1 114		25.99	2.00	106.0	0.00	71.94	-	-	0.00	0.00	-
BT3				63	15.34		84.4			0.11	-3.00			69.05
BT3				125	15.09		93.1			0.45	5.63			78.02
BT3				250	17.00		98.7			1.11	8.60			81.65
BT3				500	13.09		101.1			2.12	14.00			88.06
BT3				1000	19.45		100.5			4.12	5.00			81.06
BT3				2000	14.03		96.8			10.81	0.00			82.75
BT3				4000	-18.50		90.0			36.54	0.00			108.48
BT3				8000	-122.30		80.0			130.36	0.00			202.30
BT4	1 152		1 183		25.28	2.00	106.0	0.00	72.46	-	-	0.00	0.00	-
BT4				63	14.81		84.4			0.12	-3.00			69.58
BT4				125	14.46		93.1			0.47	5.71			78.64
BT4				250	16.41		98.7			1.18	8.60			82.24
BT4				500	12.44		101.1			2.25	14.00			88.71
BT4				1000	18.68		100.5			4.38	5.00			81.84

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## DECIBEL - Detailed results

**Calculation:** NOTTURNO **Noise calculation model:** ISO 9613-2 General

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### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT4				2000	12.85		96.8			11.47	0.00			83.93
BT4				4000	-21.28		90.0			38.80	0.00			111.26
BT4				8000	-130.85		80.0			138.39	0.00			210.85
BT5		1 383	1 425		23.06	2.00	106.0	0.00	74.07	-	-	0.00	0.00	-
BT5				63	13.17		84.4			0.14	-3.00			71.22
BT5				125	12.64		93.1			0.57	5.82			80.47
BT5				250	14.55		98.7			1.42	8.60			84.10
BT5				500	10.36		101.1			2.71	14.00			90.78
BT5				1000	16.17		100.5			5.27	5.00			84.35
BT5				2000	8.89		96.8			13.82	0.00			87.89
BT5				4000	-30.83		90.0			46.73	0.00			120.81
BT5				8000	-160.77		80.0			166.69	0.00			240.77
BT6		1 892	1 915		19.52	2.00	106.0	0.00	76.64	-	-	0.00	0.00	-
BT6				63	10.56		84.4			0.19	-3.00			73.83
BT6				125	9.85		93.1			0.77	5.85			83.26
BT6				250	11.49		98.7			1.92	8.60			87.16
BT6				500	6.86		101.1			3.64	14.00			94.28
BT6				1000	11.79		100.5			7.09	5.00			88.73
BT6				2000	1.56		96.8			18.58	0.00			95.22
BT6				4000	-49.48		90.0			62.81	0.00			139.46
BT6				8000	-220.70		80.0			224.06	0.00			300.70
BT7		2 147	2 168		18.03	2.00	106.0	0.00	77.72	-	-	0.00	0.00	-
BT7				63	9.45		84.4			0.22	-3.00			74.94
BT7				125	8.67		93.1			0.87	5.85			84.44
BT7				250	10.16		98.7			2.17	8.60			88.49
BT7				500	5.30		101.1			4.12	14.00			95.84
BT7				1000	9.77		100.5			8.02	5.00			90.75
BT7				2000	-1.98		96.8			21.03	0.00			98.76
BT7				4000	-58.87		90.0			71.12	0.00			148.84
BT7				8000	-251.42		80.0			253.70	0.00			331.42
Sum					31.99									
Sum				63	50.04									
Sum				125	39.52									
Sum				250	33.89									
Sum				500	24.39									
Sum				1000	27.21									
Sum				2000	19.78									
Sum				4000	-14.02									
Sum				8000	-117.78									

- Data undefined due to calculation with octave data

Wind speed: 9.0 m/s

### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT1		1 612	1 625		22.42	2.00	106.9	0.00	75.22	-	-	0.00	0.00	-
BT1				63	13.01		85.4			0.16	-3.00			72.38
BT1				125	12.34		94.1			0.65	5.85			81.71
BT1				250	14.14		99.6			1.63	8.60			85.44
BT1				500	9.74		102.0			3.09	14.00			92.30
BT1				1000	15.18		101.4			6.01	5.00			86.23
BT1				2000	6.60		97.6			15.76	0.00			90.98
BT1				4000	-37.75		90.8			53.30	0.00			128.52
BT1				8000	-184.67		80.7			190.13	0.00			265.35
BT2		1 121	1 163		26.39	2.00	106.9	0.00	72.31	-	-	0.00	0.00	-
BT2				63	15.96		85.4			0.12	-3.00			69.43
BT2				125	15.59		94.1			0.47	5.68			78.46
BT2				250	17.51		99.6			1.16	8.60			82.08
BT2				500	13.52		102.0			2.21	14.00			88.52
BT2				1000	19.80		101.4			4.30	5.00			81.62
BT2				2000	13.98		97.6			11.28	0.00			83.60
BT2				4000	-19.70		90.8			38.15	0.00			110.47
BT2				8000	-127.74		80.7			136.10	0.00			208.42

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## DECIBEL - Detailed results

**Calculation:** NOTTURNO **Noise calculation model:** ISO 9613-2 General

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### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT3		1 079	1 114		<b>26.90</b>	2.00	106.9	0.00	71.94	-	-	0.00	0.00	-
BT3				63	<b>16.34</b>		85.4			0.11	-3.00			69.05
BT3				125	<b>16.04</b>		94.1			0.45	5.63			78.02
BT3				250	<b>17.93</b>		99.6			1.11	8.60			81.65
BT3				500	<b>13.99</b>		102.0			2.12	14.00			88.06
BT3				1000	<b>20.35</b>		101.4			4.12	5.00			81.06
BT3				2000	<b>14.83</b>		97.6			10.81	0.00			82.75
BT3				4000	<b>-17.72</b>		90.8			36.54	0.00			108.48
BT3				8000	<b>-121.62</b>		80.7			130.36	0.00			202.30
BT4		1 152	1 183		<b>26.19</b>	2.00	106.9	0.00	72.46	-	-	0.00	0.00	-
BT4				63	<b>15.81</b>		85.4			0.12	-3.00			69.58
BT4				125	<b>15.41</b>		94.1			0.47	5.71			78.64
BT4				250	<b>17.34</b>		99.6			1.18	8.60			82.24
BT4				500	<b>13.34</b>		102.0			2.25	14.00			88.71
BT4				1000	<b>19.58</b>		101.4			4.38	5.00			81.84
BT4				2000	<b>13.65</b>		97.6			11.47	0.00			83.93
BT4				4000	<b>-20.49</b>		90.8			38.80	0.00			111.26
BT4				8000	<b>-130.18</b>		80.7			138.39	0.00			210.85
BT5		1 383	1 425		<b>23.98</b>	2.00	106.9	0.00	74.07	-	-	0.00	0.00	-
BT5				63	<b>14.17</b>		85.4			0.14	-3.00			71.22
BT5				125	<b>13.58</b>		94.1			0.57	5.82			80.47
BT5				250	<b>15.49</b>		99.6			1.42	8.60			84.10
BT5				500	<b>11.26</b>		102.0			2.71	14.00			90.78
BT5				1000	<b>17.07</b>		101.4			5.27	5.00			84.35
BT5				2000	<b>9.69</b>		97.6			13.82	0.00			87.89
BT5				4000	<b>-30.04</b>		90.8			46.73	0.00			120.81
BT5				8000	<b>-160.09</b>		80.7			166.69	0.00			240.77
BT6		1 892	1 915		<b>20.45</b>	2.00	106.9	0.00	76.64	-	-	0.00	0.00	-
BT6				63	<b>11.56</b>		85.4			0.19	-3.00			73.83
BT6				125	<b>10.79</b>		94.1			0.77	5.85			83.26
BT6				250	<b>12.43</b>		99.6			1.92	8.60			87.16
BT6				500	<b>7.76</b>		102.0			3.64	14.00			94.28
BT6				1000	<b>12.69</b>		101.4			7.09	5.00			88.73
BT6				2000	<b>2.36</b>		97.6			18.58	0.00			95.22
BT6				4000	<b>-48.69</b>		90.8			62.81	0.00			139.46
BT6				8000	<b>-220.02</b>		80.7			224.06	0.00			300.70
BT7		2 147	2 168		<b>18.96</b>	2.00	106.9	0.00	77.72	-	-	0.00	0.00	-
BT7				63	<b>10.45</b>		85.4			0.22	-3.00			74.94
BT7				125	<b>9.61</b>		94.1			0.87	5.85			84.44
BT7				250	<b>11.09</b>		99.6			2.17	8.60			88.49
BT7				500	<b>6.20</b>		102.0			4.12	14.00			95.84
BT7				1000	<b>10.67</b>		101.4			8.02	5.00			90.75
BT7				2000	<b>-1.18</b>		97.6			21.03	0.00			98.76
BT7				4000	<b>-58.08</b>		90.8			71.12	0.00			148.84
BT7				8000	<b>-250.74</b>		80.7			253.70	0.00			331.42
Sum					<b>32.92</b>									
Sum				63	<b>51.04</b>									
Sum				125	<b>40.46</b>									
Sum				250	<b>34.82</b>									
Sum				500	<b>25.29</b>									
Sum				1000	<b>28.11</b>									
Sum				2000	<b>20.58</b>									
Sum				4000	<b>-13.23</b>									
Sum				8000	<b>-117.11</b>									

- Data undefined due to calculation with octave data

Wind speed: 10.0 m/s

### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT1		1 612	1 625		<b>22.39</b>	2.00	106.9	0.00	75.22	-	-	0.00	0.00	-
BT1				63	<b>12.91</b>		85.3			0.16	-3.00			72.38
BT1				125	<b>12.31</b>		94.0			0.65	5.85			81.71

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## DECIBEL - Detailed results

**Calculation:** NOTTURNO **Noise calculation model:** ISO 9613-2 General

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### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT1				250	14.11		99.6			1.63	8.60			85.44
BT1				500	9.74		102.0			3.09	14.00			92.30
BT1				1000	15.18		101.4			6.01	5.00			86.23
BT1				2000	6.70		97.7			15.76	0.00			90.98
BT1				4000	-37.65		90.9			53.30	0.00			128.52
BT1				8000	-184.54		80.8			190.13	0.00			265.35
BT2	1 121	1 163			26.38	2.00	106.9	0.00	72.31	-	-	0.00	0.00	-
BT2				63	15.86		85.3			0.12	-3.00			69.43
BT2				125	15.56		94.0			0.47	5.68			78.46
BT2				250	17.48		99.6			1.16	8.60			82.08
BT2				500	13.52		102.0			2.21	14.00			88.52
BT2				1000	19.80		101.4			4.30	5.00			81.62
BT2				2000	14.08		97.7			11.28	0.00			83.60
BT2				4000	-19.60		90.9			38.15	0.00			110.47
BT2				8000	-127.60		80.8			136.10	0.00			208.42
BT3	1 079	1 114			26.89	2.00	106.9	0.00	71.94	-	-	0.00	0.00	-
BT3				63	16.24		85.3			0.11	-3.00			69.05
BT3				125	16.01		94.0			0.45	5.63			78.02
BT3				250	17.90		99.6			1.11	8.60			81.65
BT3				500	13.99		102.0			2.12	14.00			88.06
BT3				1000	20.35		101.4			4.12	5.00			81.06
BT3				2000	14.93		97.7			10.81	0.00			82.75
BT3				4000	-17.62		90.9			36.54	0.00			108.48
BT3				8000	-121.49		80.8			130.36	0.00			202.30
BT4	1 152	1 183			26.18	2.00	106.9	0.00	72.46	-	-	0.00	0.00	-
BT4				63	15.71		85.3			0.12	-3.00			69.58
BT4				125	15.38		94.0			0.47	5.71			78.64
BT4				250	17.31		99.6			1.18	8.60			82.24
BT4				500	13.34		102.0			2.25	14.00			88.71
BT4				1000	19.58		101.4			4.38	5.00			81.84
BT4				2000	13.75		97.7			11.47	0.00			83.93
BT4				4000	-20.39		90.9			38.80	0.00			111.26
BT4				8000	-130.04		80.8			138.39	0.00			210.85
BT5	1 383	1 425			23.96	2.00	106.9	0.00	74.07	-	-	0.00	0.00	-
BT5				63	14.07		85.3			0.14	-3.00			71.22
BT5				125	13.55		94.0			0.57	5.82			80.47
BT5				250	15.45		99.6			1.42	8.60			84.10
BT5				500	11.26		102.0			2.71	14.00			90.78
BT5				1000	17.07		101.4			5.27	5.00			84.35
BT5				2000	9.79		97.7			13.82	0.00			87.89
BT5				4000	-29.94		90.9			46.73	0.00			120.81
BT5				8000	-159.96		80.8			166.69	0.00			240.77
BT6	1 892	1 915			20.42	2.00	106.9	0.00	76.64	-	-	0.00	0.00	-
BT6				63	11.46		85.3			0.19	-3.00			73.83
BT6				125	10.76		94.0			0.77	5.85			83.26
BT6				250	12.39		99.6			1.92	8.60			87.16
BT6				500	7.76		102.0			3.64	14.00			94.28
BT6				1000	12.69		101.4			7.09	5.00			88.73
BT6				2000	2.46		97.7			18.58	0.00			95.22
BT6				4000	-48.59		90.9			62.81	0.00			139.46
BT6				8000	-219.89		80.8			224.06	0.00			300.70
BT7	2 147	2 168			18.93	2.00	106.9	0.00	77.72	-	-	0.00	0.00	-
BT7				63	10.35		85.3			0.22	-3.00			74.94
BT7				125	9.58		94.0			0.87	5.85			84.44
BT7				250	11.06		99.6			2.17	8.60			88.49
BT7				500	6.20		102.0			4.12	14.00			95.84
BT7				1000	10.67		101.4			8.02	5.00			90.75
BT7				2000	-1.08		97.7			21.03	0.00			98.76
BT7				4000	-57.98		90.9			71.12	0.00			148.84
BT7				8000	-250.61		80.8			253.70	0.00			331.42
Sum					32.90									
Sum				63	50.94									
Sum				125	40.43									

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## DECIBEL - Detailed results

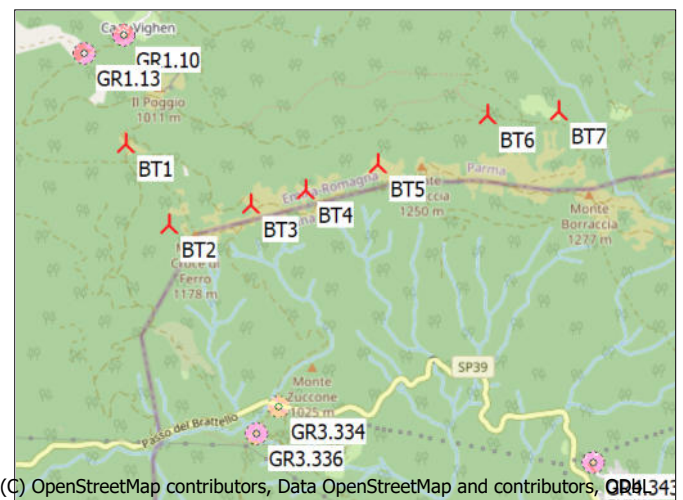
**Calculation:** NOTTURNO **Noise calculation model:** ISO 9613-2 General

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### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
Sum				250	<b>34.79</b>									
Sum				500	<b>25.29</b>									
Sum				1000	<b>28.11</b>									
Sum				2000	<b>20.68</b>									
Sum				4000	<b>-13.13</b>									
Sum				8000	<b>-116.97</b>									

- Data undefined due to calculation with octave data



▲ New WTG

Scale 1:40 000  
■ Noise sensitive area

### Noise sensitive area: GR3.336 Passo del Brattello

Wind speed: 3.0 m/s

### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT1		1 687	1 699		<b>7.79</b>	2.00	93.2	0.00	75.60	-	-	0.00	0.00	-
BT1				63	<b>-2.25</b>		70.5			0.17	-3.00			72.77
BT1				125	<b>-2.75</b>		79.4			0.68	5.85			82.13
BT1				250	<b>-0.69</b>		85.2			1.70	8.60			85.90
BT1				500	<b>-4.74</b>		88.1			3.23	14.00			92.83
BT1				1000	<b>1.11</b>		88.0			6.29	5.00			86.89
BT1				2000	<b>-7.25</b>		84.8			16.48	0.00			92.08
BT1				4000	<b>-52.67</b>		78.7			55.72	0.00			131.33
BT1				8000	<b>-204.92</b>		69.5			198.77	0.00			274.37
BT2		1 197	1 236		<b>11.73</b>	2.00	93.2	0.00	72.84	-	-	0.00	0.00	-
BT2				63	<b>0.56</b>		70.5			0.12	-3.00			69.96
BT2				125	<b>0.30</b>		79.4			0.49	5.75			79.08
BT2				250	<b>2.53</b>		85.2			1.24	8.60			82.67
BT2				500	<b>-1.10</b>		88.1			2.35	14.00			89.19
BT2				1000	<b>5.58</b>		88.0			4.57	5.00			82.41
BT2				2000	<b>0.00</b>		84.8			11.99	0.00			84.83
BT2				4000	<b>-34.71</b>		78.7			40.53	0.00			113.37
BT2				8000	<b>-147.97</b>		69.5			144.59	0.00			217.43
BT3		1 212	1 243		<b>11.66</b>	2.00	93.2	0.00	72.89	-	-	0.00	0.00	-
BT3				63	<b>0.51</b>		70.5			0.12	-3.00			70.01
BT3				125	<b>0.24</b>		79.4			0.50	5.76			79.14
BT3				250	<b>2.48</b>		85.2			1.24	8.60			82.73
BT3				500	<b>-1.16</b>		88.1			2.36	14.00			89.25
BT3				1000	<b>5.51</b>		88.0			4.60	5.00			82.48
BT3				2000	<b>-0.11</b>		84.8			12.05	0.00			84.94
BT3				4000	<b>-34.99</b>		78.7			40.76	0.00			113.65

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## DECIBEL - Detailed results

**Calculation:** NOTTURNO **Noise calculation model:** ISO 9613-2 General

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### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT3				8000	<b>-148.82</b>		69.5			145.39	0.00			218.27
BT4		1 312	1 338		<b>10.75</b>	2.00	93.2	0.00	73.53	-	-	0.00	0.00	-
BT4				63	<b>-0.14</b>		70.5			0.13	-3.00			70.66
BT4				125	<b>-0.49</b>		79.4			0.54	5.80			79.87
BT4				250	<b>1.74</b>		85.2			1.34	8.60			83.47
BT4				500	<b>-1.98</b>		88.1			2.54	14.00			90.07
BT4				1000	<b>4.51</b>		88.0			4.95	5.00			83.48
BT4				2000	<b>-1.68</b>		84.8			12.98	0.00			86.51
BT4				4000	<b>-38.76</b>		78.7			43.89	0.00			117.42
BT4				8000	<b>-160.62</b>		69.5			156.55	0.00			230.08
BT5		1 560	1 595		<b>8.57</b>	2.00	93.2	0.00	75.06	-	-	0.00	0.00	-
BT5				63	<b>-1.70</b>		70.5			0.16	-3.00			72.22
BT5				125	<b>-2.16</b>		79.4			0.64	5.84			81.54
BT5				250	<b>-0.05</b>		85.2			1.60	8.60			85.25
BT5				500	<b>-4.00</b>		88.1			3.03	14.00			92.09
BT5				1000	<b>2.03</b>		88.0			5.90	5.00			85.96
BT5				2000	<b>-5.70</b>		84.8			15.48	0.00			90.53
BT5				4000	<b>-48.73</b>		78.7			52.33	0.00			127.39
BT5				8000	<b>-192.27</b>		69.5			186.67	0.00			261.72
BT6		2 074	2 095		<b>5.18</b>	2.00	93.2	0.00	77.42	-	-	0.00	0.00	-
BT6				63	<b>-4.11</b>		70.5			0.21	-3.00			74.63
BT6				125	<b>-4.73</b>		79.4			0.84	5.85			84.11
BT6				250	<b>-2.91</b>		85.2			2.09	8.60			88.12
BT6				500	<b>-7.31</b>		88.1			3.98	14.00			95.40
BT6				1000	<b>-2.18</b>		88.0			7.75	5.00			90.17
BT6				2000	<b>-12.91</b>		84.8			20.32	0.00			97.74
BT6				4000	<b>-67.47</b>		78.7			68.70	0.00			146.13
BT6				8000	<b>-253.04</b>		69.5			245.07	0.00			322.49
BT7		2 329	2 348		<b>3.75</b>	2.00	93.2	0.00	78.41	-	-	0.00	0.00	-
BT7				63	<b>-5.13</b>		70.5			0.23	-3.00			75.65
BT7				125	<b>-5.83</b>		79.4			0.94	5.85			85.20
BT7				250	<b>-4.15</b>		85.2			2.35	8.60			89.36
BT7				500	<b>-8.79</b>		88.1			4.46	14.00			96.87
BT7				1000	<b>-4.11</b>		88.0			8.69	5.00			92.10
BT7				2000	<b>-16.36</b>		84.8			22.77	0.00			101.19
BT7				4000	<b>-76.76</b>		78.7			77.01	0.00			155.42
BT7				8000	<b>-283.66</b>		69.5			274.70	0.00			353.11
Sum					<b>17.80</b>									
Sum				63	<b>35.35</b>									
Sum				125	<b>24.87</b>									
Sum				250	<b>19.52</b>									
Sum				500	<b>10.29</b>									
Sum				1000	<b>13.42</b>									
Sum				2000	<b>5.83</b>									
Sum				4000	<b>-29.93</b>									
Sum				8000	<b>-142.14</b>									

- Data undefined due to calculation with octave data

Wind speed: 4.0 m/s

### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT1		1 687	1 699		<b>8.30</b>	2.00	93.6	0.00	75.60	-	-	0.00	0.00	-
BT1				63	<b>-1.48</b>		71.3			0.17	-3.00			72.77
BT1				125	<b>-2.05</b>		80.1			0.68	5.85			82.13
BT1				250	<b>-0.09</b>		85.8			1.70	8.60			85.90
BT1				500	<b>-4.24</b>		88.6			3.23	14.00			92.83
BT1				1000	<b>1.41</b>		88.3			6.29	5.00			86.89
BT1				2000	<b>-7.11</b>		85.0			16.48	0.00			92.08
BT1				4000	<b>-52.60</b>		78.7			55.72	0.00			131.33
BT1				8000	<b>-204.97</b>		69.4			198.77	0.00			274.37
BT2		1 197	1 236		<b>12.20</b>	2.00	93.6	0.00	72.84	-	-	0.00	0.00	-
BT2				63	<b>1.33</b>		71.3			0.12	-3.00			69.96

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## DECIBEL - Detailed results

**Calculation:** NOTTURNO **Noise calculation model:** ISO 9613-2 General

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### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT2				125	1.00		80.1			0.49	5.75			79.08
BT2				250	3.13		85.8			1.24	8.60			82.67
BT2				500	-0.60		88.6			2.35	14.00			89.19
BT2				1000	5.89		88.3			4.57	5.00			82.41
BT2				2000	0.15		85.0			11.99	0.00			84.83
BT2				4000	-34.65		78.7			40.53	0.00			113.37
BT2				8000	-148.02		69.4			144.59	0.00			217.43
BT3	1 212	1 243		125	12.13	2.00	93.6	0.00	72.89	-	-	0.00	0.00	-
BT3				63	1.28		71.3			0.12	-3.00			70.01
BT3				125	0.94		80.1			0.50	5.76			79.14
BT3				250	3.08		85.8			1.24	8.60			82.73
BT3				500	-0.66		88.6			2.36	14.00			89.25
BT3				1000	5.82		88.3			4.60	5.00			82.48
BT3				2000	0.04		85.0			12.05	0.00			84.94
BT3				4000	-34.92		78.7			40.76	0.00			113.65
BT3				8000	-148.87		69.4			145.39	0.00			218.27
BT4	1 312	1 338		125	11.23	2.00	93.6	0.00	73.53	-	-	0.00	0.00	-
BT4				63	0.63		71.3			0.13	-3.00			70.66
BT4				125	0.21		80.1			0.54	5.80			79.87
BT4				250	2.34		85.8			1.34	8.60			83.47
BT4				500	-1.48		88.6			2.54	14.00			90.07
BT4				1000	4.82		88.3			4.95	5.00			83.48
BT4				2000	-1.53		85.0			12.98	0.00			86.51
BT4				4000	-38.69		78.7			43.89	0.00			117.42
BT4				8000	-160.67		69.4			156.55	0.00			230.08
BT5	1 560	1 595		125	9.07	2.00	93.6	0.00	75.06	-	-	0.00	0.00	-
BT5				63	-0.93		71.3			0.16	-3.00			72.22
BT5				125	-1.46		80.1			0.64	5.84			81.54
BT5				250	0.55		85.8			1.60	8.60			85.25
BT5				500	-3.50		88.6			3.03	14.00			92.09
BT5				1000	2.34		88.3			5.90	5.00			85.96
BT5				2000	-5.56		85.0			15.48	0.00			90.53
BT5				4000	-48.66		78.7			52.33	0.00			127.39
BT5				8000	-192.32		69.4			186.67	0.00			261.72
BT6	2 074	2 095		125	5.72	2.00	93.6	0.00	77.42	-	-	0.00	0.00	-
BT6				63	-3.34		71.3			0.21	-3.00			74.63
BT6				125	-4.03		80.1			0.84	5.85			84.11
BT6				250	-2.31		85.8			2.09	8.60			88.12
BT6				500	-6.81		88.6			3.98	14.00			95.40
BT6				1000	-1.87		88.3			7.75	5.00			90.17
BT6				2000	-12.76		85.0			20.32	0.00			97.74
BT6				4000	-67.40		78.7			68.70	0.00			146.13
BT6				8000	-253.09		69.4			245.07	0.00			322.49
BT7	2 329	2 348		125	4.32	2.00	93.6	0.00	78.41	-	-	0.00	0.00	-
BT7				63	-4.36		71.3			0.23	-3.00			75.65
BT7				125	-5.13		80.1			0.94	5.85			85.20
BT7				250	-3.55		85.8			2.35	8.60			89.36
BT7				500	-8.29		88.6			4.46	14.00			96.87
BT7				1000	-3.80		88.3			8.69	5.00			92.10
BT7				2000	-16.21		85.0			22.77	0.00			101.19
BT7				4000	-76.70		78.7			77.01	0.00			155.42
BT7				8000	-283.71		69.4			274.70	0.00			353.11
Sum					18.29									
Sum				63	36.13									
Sum				125	25.57									
Sum				250	20.12									
Sum				500	10.79									
Sum				1000	13.73									
Sum				2000	5.98									
Sum				4000	-29.86									
Sum				8000	-142.19									

- Data undefined due to calculation with octave data

## DECIBEL - Detailed results

**Calculation:** NOTTURNO **Noise calculation model:** ISO 9613-2 General

Wind speed: 5.0 m/s

### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT1		1 687	1 699		<b>11.34</b>	2.00	96.5	0.00	75.60	-	-	0.00	0.00	-
BT1				63	<b>1.82</b>		74.6			0.17	-3.00			72.77
BT1				125	<b>1.17</b>		83.3			0.68	5.85			82.13
BT1				250	<b>3.03</b>		88.9			1.70	8.60			85.90
BT1				500	<b>-1.28</b>		91.6			3.23	14.00			92.83
BT1				1000	<b>4.21</b>		91.1			6.29	5.00			86.89
BT1				2000	<b>-4.46</b>		87.6			16.48	0.00			92.08
BT1				4000	<b>-50.19</b>		81.1			55.72	0.00			131.33
BT1				8000	<b>-202.88</b>		71.5			198.77	0.00			274.37
BT2		1 197	1 236		<b>15.18</b>	2.00	96.5	0.00	72.84	-	-	0.00	0.00	-
BT2				63	<b>4.63</b>		74.6			0.12	-3.00			69.96
BT2				125	<b>4.23</b>		83.3			0.49	5.75			79.08
BT2				250	<b>6.26</b>		88.9			1.24	8.60			82.67
BT2				500	<b>2.36</b>		91.6			2.35	14.00			89.19
BT2				1000	<b>8.69</b>		91.1			4.57	5.00			82.41
BT2				2000	<b>2.80</b>		87.6			11.99	0.00			84.83
BT2				4000	<b>-32.23</b>		81.1			40.53	0.00			113.37
BT2				8000	<b>-145.93</b>		71.5			144.59	0.00			217.43
BT3		1 212	1 243		<b>15.11</b>	2.00	96.5	0.00	72.89	-	-	0.00	0.00	-
BT3				63	<b>4.58</b>		74.6			0.12	-3.00			70.01
BT3				125	<b>4.17</b>		83.3			0.50	5.76			79.14
BT3				250	<b>6.20</b>		88.9			1.24	8.60			82.73
BT3				500	<b>2.30</b>		91.6			2.36	14.00			89.25
BT3				1000	<b>8.62</b>		91.1			4.60	5.00			82.48
BT3				2000	<b>2.68</b>		87.6			12.05	0.00			84.94
BT3				4000	<b>-32.51</b>		81.1			40.76	0.00			113.65
BT3				8000	<b>-146.78</b>		71.5			145.39	0.00			218.27
BT4		1 312	1 338		<b>14.22</b>	2.00	96.5	0.00	73.53	-	-	0.00	0.00	-
BT4				63	<b>3.93</b>		74.6			0.13	-3.00			70.66
BT4				125	<b>3.44</b>		83.3			0.54	5.80			79.87
BT4				250	<b>5.46</b>		88.9			1.34	8.60			83.47
BT4				500	<b>1.48</b>		91.6			2.54	14.00			90.07
BT4				1000	<b>7.62</b>		91.1			4.95	5.00			83.48
BT4				2000	<b>1.11</b>		87.6			12.98	0.00			86.51
BT4				4000	<b>-36.28</b>		81.1			43.89	0.00			117.42
BT4				8000	<b>-158.58</b>		71.5			156.55	0.00			230.08
BT5		1 560	1 595		<b>12.10</b>	2.00	96.5	0.00	75.06	-	-	0.00	0.00	-
BT5				63	<b>2.37</b>		74.6			0.16	-3.00			72.22
BT5				125	<b>1.77</b>		83.3			0.64	5.84			81.54
BT5				250	<b>3.68</b>		88.9			1.60	8.60			85.25
BT5				500	<b>-0.54</b>		91.6			3.03	14.00			92.09
BT5				1000	<b>5.14</b>		91.1			5.90	5.00			85.96
BT5				2000	<b>-2.91</b>		87.6			15.48	0.00			90.53
BT5				4000	<b>-46.25</b>		81.1			52.33	0.00			127.39
BT5				8000	<b>-190.23</b>		71.5			186.67	0.00			261.72
BT6		2 074	2 095		<b>8.79</b>	2.00	96.5	0.00	77.42	-	-	0.00	0.00	-
BT6				63	<b>-0.04</b>		74.6			0.21	-3.00			74.63
BT6				125	<b>-0.80</b>		83.3			0.84	5.85			84.11
BT6				250	<b>0.81</b>		88.9			2.09	8.60			88.12
BT6				500	<b>-3.85</b>		91.6			3.98	14.00			95.40
BT6				1000	<b>0.93</b>		91.1			7.75	5.00			90.17
BT6				2000	<b>-10.12</b>		87.6			20.32	0.00			97.74
BT6				4000	<b>-64.99</b>		81.1			68.70	0.00			146.13
BT6				8000	<b>-251.00</b>		71.5			245.07	0.00			322.49
BT7		2 329	2 348		<b>7.40</b>	2.00	96.5	0.00	78.41	-	-	0.00	0.00	-
BT7				63	<b>-1.06</b>		74.6			0.23	-3.00			75.65
BT7				125	<b>-1.90</b>		83.3			0.94	5.85			85.20
BT7				250	<b>-0.43</b>		88.9			2.35	8.60			89.36
BT7				500	<b>-5.32</b>		91.6			4.46	14.00			96.87
BT7				1000	<b>-1.00</b>		91.1			8.69	5.00			92.10
BT7				2000	<b>-13.57</b>		87.6			22.77	0.00			101.19
BT7				4000	<b>-74.28</b>		81.1			77.01	0.00			155.42
BT7				8000	<b>-281.62</b>		71.5			274.70	0.00			353.11

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## DECIBEL - Detailed results

**Calculation:** NOTTURNO **Noise calculation model:** ISO 9613-2 General

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### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
Sum					<b>21.29</b>									
Sum				63	<b>39.43</b>									
Sum				125	<b>28.80</b>									
Sum				250	<b>23.24</b>									
Sum				500	<b>13.75</b>									
Sum				1000	<b>16.53</b>									
Sum				2000	<b>8.63</b>									
Sum				4000	<b>-27.45</b>									
Sum				8000	<b>-140.10</b>									

- Data undefined due to calculation with octave data

Wind speed: 6.0 m/s

### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT1		1 687	1 699		<b>14.89</b>	2.00	100.0	0.00	75.60	-	-	0.00	0.00	-
BT1				63	<b>5.46</b>		78.2			0.17	-3.00			72.77
BT1				125	<b>4.79</b>		86.9			0.68	5.85			82.13
BT1				250	<b>6.63</b>		92.5			1.70	8.60			85.90
BT1				500	<b>2.25</b>		95.1			3.23	14.00			92.83
BT1				1000	<b>7.69</b>		94.6			6.29	5.00			86.89
BT1				2000	<b>-1.08</b>		91.0			16.48	0.00			92.08
BT1				4000	<b>-46.99</b>		84.3			55.72	0.00			131.33
BT1				8000	<b>-199.82</b>		74.6			198.77	0.00			274.37
BT2		1 197	1 236		<b>18.72</b>	2.00	100.0	0.00	72.84	-	-	0.00	0.00	-
BT2				63	<b>8.27</b>		78.2			0.12	-3.00			69.96
BT2				125	<b>7.84</b>		86.9			0.49	5.75			79.08
BT2				250	<b>9.86</b>		92.5			1.24	8.60			82.67
BT2				500	<b>5.89</b>		95.1			2.35	14.00			89.19
BT2				1000	<b>12.16</b>		94.6			4.57	5.00			82.41
BT2				2000	<b>6.18</b>		91.0			11.99	0.00			84.83
BT2				4000	<b>-29.03</b>		84.3			40.53	0.00			113.37
BT2				8000	<b>-142.87</b>		74.6			144.59	0.00			217.43
BT3		1 212	1 243		<b>18.65</b>	2.00	100.0	0.00	72.89	-	-	0.00	0.00	-
BT3				63	<b>8.22</b>		78.2			0.12	-3.00			70.01
BT3				125	<b>7.78</b>		86.9			0.50	5.76			79.14
BT3				250	<b>9.80</b>		92.5			1.24	8.60			82.73
BT3				500	<b>5.83</b>		95.1			2.36	14.00			89.25
BT3				1000	<b>12.09</b>		94.6			4.60	5.00			82.48
BT3				2000	<b>6.06</b>		91.0			12.05	0.00			84.94
BT3				4000	<b>-29.31</b>		84.3			40.76	0.00			113.65
BT3				8000	<b>-143.72</b>		74.6			145.39	0.00			218.27
BT4		1 312	1 338		<b>17.76</b>	2.00	100.0	0.00	73.53	-	-	0.00	0.00	-
BT4				63	<b>7.57</b>		78.2			0.13	-3.00			70.66
BT4				125	<b>7.05</b>		86.9			0.54	5.80			79.87
BT4				250	<b>9.06</b>		92.5			1.34	8.60			83.47
BT4				500	<b>5.01</b>		95.1			2.54	14.00			90.07
BT4				1000	<b>11.10</b>		94.6			4.95	5.00			83.48
BT4				2000	<b>4.49</b>		91.0			12.98	0.00			86.51
BT4				4000	<b>-33.08</b>		84.3			43.89	0.00			117.42
BT4				8000	<b>-155.52</b>		74.6			156.55	0.00			230.08
BT5		1 560	1 595		<b>15.65</b>	2.00	100.0	0.00	75.06	-	-	0.00	0.00	-
BT5				63	<b>6.01</b>		78.2			0.16	-3.00			72.22
BT5				125	<b>5.38</b>		86.9			0.64	5.84			81.54
BT5				250	<b>7.28</b>		92.5			1.60	8.60			85.25
BT5				500	<b>2.99</b>		95.1			3.03	14.00			92.09
BT5				1000	<b>8.62</b>		94.6			5.90	5.00			85.96
BT5				2000	<b>0.47</b>		91.0			15.48	0.00			90.53
BT5				4000	<b>-43.05</b>		84.3			52.33	0.00			127.39
BT5				8000	<b>-187.17</b>		74.6			186.67	0.00			261.72
BT6		2 074	2 095		<b>12.36</b>	2.00	100.0	0.00	77.42	-	-	0.00	0.00	-
BT6				63	<b>3.60</b>		78.2			0.21	-3.00			74.63
BT6				125	<b>2.81</b>		86.9			0.84	5.85			84.11

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## DECIBEL - Detailed results

**Calculation:** NOTTURNO **Noise calculation model:** ISO 9613-2 General

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### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT6				250	4.41		92.5			2.09	8.60			88.12
BT6				500	-0.32		95.1			3.98	14.00			95.40
BT6				1000	4.40		94.6			7.75	5.00			90.17
BT6				2000	-6.74		91.0			20.32	0.00			97.74
BT6				4000	-61.79		84.3			68.70	0.00			146.13
BT6				8000	-247.93		74.6			245.07	0.00			322.49
BT7		2 329	2 348		10.98	2.00	100.0	0.00	78.41	-	-	0.00	0.00	-
BT7				63	2.58		78.2			0.23	-3.00			75.65
BT7				125	1.72		86.9			0.94	5.85			85.20
BT7				250	3.17		92.5			2.35	8.60			89.36
BT7				500	-1.79		95.1			4.46	14.00			96.87
BT7				1000	2.48		94.6			8.69	5.00			92.10
BT7				2000	-10.19		91.0			22.77	0.00			101.19
BT7				4000	-71.08		84.3			77.01	0.00			155.42
BT7				8000	-278.55		74.6			274.70	0.00			353.11
Sum					24.84									
Sum				63	43.07									
Sum				125	32.42									
Sum				250	26.84									
Sum				500	17.28									
Sum				1000	20.01									
Sum				2000	12.00									
Sum				4000	-24.25									
Sum				8000	-137.03									

- Data undefined due to calculation with octave data

Wind speed: 7.0 m/s

### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT1		1 687	1 699		18.12	2.00	103.2	0.00	75.60	-	-	0.00	0.00	-
BT1				63	8.72		81.5			0.17	-3.00			72.77
BT1				125	8.07		90.2			0.68	5.85			82.13
BT1				250	9.88		95.8			1.70	8.60			85.90
BT1				500	5.45		98.3			3.23	14.00			92.83
BT1				1000	10.89		97.8			6.29	5.00			86.89
BT1				2000	2.00		94.1			16.48	0.00			92.08
BT1				4000	-43.95		87.4			55.72	0.00			131.33
BT1				8000	-196.86		77.5			198.77	0.00			274.37
BT2		1 197	1 236		21.94	2.00	103.2	0.00	72.84	-	-	0.00	0.00	-
BT2				63	11.53		81.5			0.12	-3.00			69.96
BT2				125	11.13		90.2			0.49	5.75			79.08
BT2				250	13.11		95.8			1.24	8.60			82.67
BT2				500	9.09		98.3			2.35	14.00			89.19
BT2				1000	15.36		97.8			4.57	5.00			82.41
BT2				2000	9.25		94.1			11.99	0.00			84.83
BT2				4000	-25.99		87.4			40.53	0.00			113.37
BT2				8000	-139.91		77.5			144.59	0.00			217.43
BT3		1 212	1 243		21.87	2.00	103.2	0.00	72.89	-	-	0.00	0.00	-
BT3				63	11.48		81.5			0.12	-3.00			70.01
BT3				125	11.07		90.2			0.50	5.76			79.14
BT3				250	13.06		95.8			1.24	8.60			82.73
BT3				500	9.03		98.3			2.36	14.00			89.25
BT3				1000	15.29		97.8			4.60	5.00			82.48
BT3				2000	9.14		94.1			12.05	0.00			84.94
BT3				4000	-26.27		87.4			40.76	0.00			113.65
BT3				8000	-140.76		77.5			145.39	0.00			218.27
BT4		1 312	1 338		20.99	2.00	103.2	0.00	73.53	-	-	0.00	0.00	-
BT4				63	10.83		81.5			0.13	-3.00			70.66
BT4				125	10.34		90.2			0.54	5.80			79.87
BT4				250	12.32		95.8			1.34	8.60			83.47
BT4				500	8.21		98.3			2.54	14.00			90.07
BT4				1000	14.30		97.8			4.95	5.00			83.48

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## DECIBEL - Detailed results

**Calculation:** NOTTURNO **Noise calculation model:** ISO 9613-2 General

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### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT4				2000	7.57		94.1			12.98	0.00			86.51
BT4				4000	-30.04		87.4			43.89	0.00			117.42
BT4				8000	-152.57		77.5			156.55	0.00			230.08
BT5		1 560	1 595		18.88	2.00	103.2	0.00	75.06	-	-	0.00	0.00	-
BT5				63	9.27		81.5			0.16	-3.00			72.22
BT5				125	8.67		90.2			0.64	5.84			81.54
BT5				250	10.53		95.8			1.60	8.60			85.25
BT5				500	6.19		98.3			3.03	14.00			92.09
BT5				1000	11.82		97.8			5.90	5.00			85.96
BT5				2000	3.55		94.1			15.48	0.00			90.53
BT5				4000	-40.01		87.4			52.33	0.00			127.39
BT5				8000	-184.21		77.5			186.67	0.00			261.72
BT6		2 074	2 095		15.60	2.00	103.2	0.00	77.42	-	-	0.00	0.00	-
BT6				63	6.86		81.5			0.21	-3.00			74.63
BT6				125	6.10		90.2			0.84	5.85			84.11
BT6				250	7.67		95.8			2.09	8.60			88.12
BT6				500	2.88		98.3			3.98	14.00			95.40
BT6				1000	7.60		97.8			7.75	5.00			90.17
BT6				2000	-3.66		94.1			20.32	0.00			97.74
BT6				4000	-58.75		87.4			68.70	0.00			146.13
BT6				8000	-244.98		77.5			245.07	0.00			322.49
BT7		2 329	2 348		14.22	2.00	103.2	0.00	78.41	-	-	0.00	0.00	-
BT7				63	5.84		81.5			0.23	-3.00			75.65
BT7				125	5.00		90.2			0.94	5.85			85.20
BT7				250	6.42		95.8			2.35	8.60			89.36
BT7				500	1.41		98.3			4.46	14.00			96.87
BT7				1000	5.68		97.8			8.69	5.00			92.10
BT7				2000	-7.11		94.1			22.77	0.00			101.19
BT7				4000	-68.04		87.4			77.01	0.00			155.42
BT7				8000	-275.60		77.5			274.70	0.00			353.11
Sum					28.06									
Sum				63	46.33									
Sum				125	35.70									
Sum				250	30.09									
Sum				500	20.48									
Sum				1000	23.21									
Sum				2000	15.08									
Sum				4000	-21.21									
Sum				8000	-134.08									

- Data undefined due to calculation with octave data

Wind speed: 8.0 m/s

### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT1		1 687	1 699		20.96	2.00	106.0	0.00	75.60	-	-	0.00	0.00	-
BT1				63	11.62		84.4			0.17	-3.00			72.77
BT1				125	10.97		93.1			0.68	5.85			82.13
BT1				250	12.75		98.7			1.70	8.60			85.90
BT1				500	8.31		101.1			3.23	14.00			92.83
BT1				1000	13.63		100.5			6.29	5.00			86.89
BT1				2000	4.70		96.8			16.48	0.00			92.08
BT1				4000	-41.35		90.0			55.72	0.00			131.33
BT1				8000	-194.37		80.0			198.77	0.00			274.37
BT2		1 197	1 236		24.76	2.00	106.0	0.00	72.84	-	-	0.00	0.00	-
BT2				63	14.43		84.4			0.12	-3.00			69.96
BT2				125	14.03		93.1			0.49	5.75			79.08
BT2				250	15.98		98.7			1.24	8.60			82.67
BT2				500	11.96		101.1			2.35	14.00			89.19
BT2				1000	18.10		100.5			4.57	5.00			82.41
BT2				2000	11.95		96.8			11.99	0.00			84.83
BT2				4000	-23.39		90.0			40.53	0.00			113.37
BT2				8000	-137.42		80.0			144.59	0.00			217.43

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## DECIBEL - Detailed results

**Calculation:** NOTTURNO **Noise calculation model:** ISO 9613-2 General

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### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT3		1 212	1 243		<b>24.69</b>	2.00	106.0	0.00	72.89	-	-	0.00	0.00	-
BT3				63	<b>14.38</b>		84.4			0.12	-3.00			70.01
BT3				125	<b>13.97</b>		93.1			0.50	5.76			79.14
BT3				250	<b>15.92</b>		98.7			1.24	8.60			82.73
BT3				500	<b>11.90</b>		101.1			2.36	14.00			89.25
BT3				1000	<b>18.03</b>		100.5			4.60	5.00			82.48
BT3				2000	<b>11.84</b>		96.8			12.05	0.00			84.94
BT3				4000	<b>-23.67</b>		90.0			40.76	0.00			113.65
BT3				8000	<b>-138.27</b>		80.0			145.39	0.00			218.27
BT4		1 312	1 338		<b>23.81</b>	2.00	106.0	0.00	73.53	-	-	0.00	0.00	-
BT4				63	<b>13.73</b>		84.4			0.13	-3.00			70.66
BT4				125	<b>13.24</b>		93.1			0.54	5.80			79.87
BT4				250	<b>15.19</b>		98.7			1.34	8.60			83.47
BT4				500	<b>11.07</b>		101.1			2.54	14.00			90.07
BT4				1000	<b>17.03</b>		100.5			4.95	5.00			83.48
BT4				2000	<b>10.27</b>		96.8			12.98	0.00			86.51
BT4				4000	<b>-27.44</b>		90.0			43.89	0.00			117.42
BT4				8000	<b>-150.08</b>		80.0			156.55	0.00			230.08
BT5		1 560	1 595		<b>21.71</b>	2.00	106.0	0.00	75.06	-	-	0.00	0.00	-
BT5				63	<b>12.17</b>		84.4			0.16	-3.00			72.22
BT5				125	<b>11.57</b>		93.1			0.64	5.84			81.54
BT5				250	<b>13.40</b>		98.7			1.60	8.60			85.25
BT5				500	<b>9.06</b>		101.1			3.03	14.00			92.09
BT5				1000	<b>14.55</b>		100.5			5.90	5.00			85.96
BT5				2000	<b>6.25</b>		96.8			15.48	0.00			90.53
BT5				4000	<b>-37.41</b>		90.0			52.33	0.00			127.39
BT5				8000	<b>-181.72</b>		80.0			186.67	0.00			261.72
BT6		2 074	2 095		<b>18.44</b>	2.00	106.0	0.00	77.42	-	-	0.00	0.00	-
BT6				63	<b>9.76</b>		84.4			0.21	-3.00			74.63
BT6				125	<b>9.00</b>		93.1			0.84	5.85			84.11
BT6				250	<b>10.54</b>		98.7			2.09	8.60			88.12
BT6				500	<b>5.74</b>		101.1			3.98	14.00			95.40
BT6				1000	<b>10.34</b>		100.5			7.75	5.00			90.17
BT6				2000	<b>-0.96</b>		96.8			20.32	0.00			97.74
BT6				4000	<b>-56.15</b>		90.0			68.70	0.00			146.13
BT6				8000	<b>-242.49</b>		80.0			245.07	0.00			322.49
BT7		2 329	2 348		<b>17.07</b>	2.00	106.0	0.00	78.41	-	-	0.00	0.00	-
BT7				63	<b>8.74</b>		84.4			0.23	-3.00			75.65
BT7				125	<b>7.90</b>		93.1			0.94	5.85			85.20
BT7				250	<b>9.29</b>		98.7			2.35	8.60			89.36
BT7				500	<b>4.27</b>		101.1			4.46	14.00			96.87
BT7				1000	<b>8.41</b>		100.5			8.69	5.00			92.10
BT7				2000	<b>-4.41</b>		96.8			22.77	0.00			101.19
BT7				4000	<b>-65.44</b>		90.0			77.01	0.00			155.42
BT7				8000	<b>-273.11</b>		80.0			274.70	0.00			353.11
Sum					<b>30.89</b>									
Sum				63	<b>49.23</b>									
Sum				125	<b>38.60</b>									
Sum				250	<b>32.96</b>									
Sum				500	<b>23.35</b>									
Sum				1000	<b>25.94</b>									
Sum				2000	<b>17.78</b>									
Sum				4000	<b>-18.61</b>									
Sum				8000	<b>-131.59</b>									

- Data undefined due to calculation with octave data

Wind speed: 9.0 m/s

### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT1		1 687	1 699		<b>21.89</b>	2.00	106.9	0.00	75.60	-	-	0.00	0.00	-
BT1				63	<b>12.62</b>		85.4			0.17	-3.00			72.77
BT1				125	<b>11.92</b>		94.1			0.68	5.85			82.13

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## DECIBEL - Detailed results

**Calculation:** NOTTURNO **Noise calculation model:** ISO 9613-2 General

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### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT1				250	13.68		99.6			1.70	8.60			85.90
BT1				500	9.21		102.0			3.23	14.00			92.83
BT1				1000	14.53		101.4			6.29	5.00			86.89
BT1				2000	5.50		97.6			16.48	0.00			92.08
BT1				4000	-40.56		90.8			55.72	0.00			131.33
BT1				8000	-193.70		80.7			198.77	0.00			274.37
BT2	1 197		1 236		25.68	2.00	106.9	0.00	72.84	-	-	0.00	0.00	-
BT2				63	15.43		85.4			0.12	-3.00			69.96
BT2				125	14.97		94.1			0.49	5.75			79.08
BT2				250	16.91		99.6			1.24	8.60			82.67
BT2				500	12.86		102.0			2.35	14.00			89.19
BT2				1000	19.00		101.4			4.57	5.00			82.41
BT2				2000	12.75		97.6			11.99	0.00			84.83
BT2				4000	-22.61		90.8			40.53	0.00			113.37
BT2				8000	-136.75		80.7			144.59	0.00			217.43
BT3	1 212		1 243		25.61	2.00	106.9	0.00	72.89	-	-	0.00	0.00	-
BT3				63	15.38		85.4			0.12	-3.00			70.01
BT3				125	14.91		94.1			0.50	5.76			79.14
BT3				250	16.86		99.6			1.24	8.60			82.73
BT3				500	12.80		102.0			2.36	14.00			89.25
BT3				1000	18.93		101.4			4.60	5.00			82.48
BT3				2000	12.64		97.6			12.05	0.00			84.94
BT3				4000	-22.88		90.8			40.76	0.00			113.65
BT3				8000	-137.60		80.7			145.39	0.00			218.27
BT4	1 312		1 338		24.73	2.00	106.9	0.00	73.53	-	-	0.00	0.00	-
BT4				63	14.73		85.4			0.13	-3.00			70.66
BT4				125	14.18		94.1			0.54	5.80			79.87
BT4				250	16.12		99.6			1.34	8.60			83.47
BT4				500	11.97		102.0			2.54	14.00			90.07
BT4				1000	17.93		101.4			4.95	5.00			83.48
BT4				2000	11.07		97.6			12.98	0.00			86.51
BT4				4000	-26.65		90.8			43.89	0.00			117.42
BT4				8000	-149.40		80.7			156.55	0.00			230.08
BT5	1 560		1 595		22.64	2.00	106.9	0.00	75.06	-	-	0.00	0.00	-
BT5				63	13.17		85.4			0.16	-3.00			72.22
BT5				125	12.51		94.1			0.64	5.84			81.54
BT5				250	14.33		99.6			1.60	8.60			85.25
BT5				500	9.96		102.0			3.03	14.00			92.09
BT5				1000	15.45		101.4			5.90	5.00			85.96
BT5				2000	7.05		97.6			15.48	0.00			90.53
BT5				4000	-36.62		90.8			52.33	0.00			127.39
BT5				8000	-181.05		80.7			186.67	0.00			261.72
BT6	2 074		2 095		19.38	2.00	106.9	0.00	77.42	-	-	0.00	0.00	-
BT6				63	10.76		85.4			0.21	-3.00			74.63
BT6				125	9.94		94.1			0.84	5.85			84.11
BT6				250	11.47		99.6			2.09	8.60			88.12
BT6				500	6.64		102.0			3.98	14.00			95.40
BT6				1000	11.24		101.4			7.75	5.00			90.17
BT6				2000	-0.16		97.6			20.32	0.00			97.74
BT6				4000	-55.36		90.8			68.70	0.00			146.13
BT6				8000	-241.82		80.7			245.07	0.00			322.49
BT7	2 329		2 348		18.01	2.00	106.9	0.00	78.41	-	-	0.00	0.00	-
BT7				63	9.74		85.4			0.23	-3.00			75.65
BT7				125	8.85		94.1			0.94	5.85			85.20
BT7				250	10.22		99.6			2.35	8.60			89.36
BT7				500	5.17		102.0			4.46	14.00			96.87
BT7				1000	9.31		101.4			8.69	5.00			92.10
BT7				2000	-3.61		97.6			22.77	0.00			101.19
BT7				4000	-64.66		90.8			77.01	0.00			155.42
BT7				8000	-272.44		80.7			274.70	0.00			353.11
Sum					31.81									
Sum				63	50.23									
Sum				125	39.55									

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## DECIBEL - Detailed results

**Calculation:** NOTTURNO **Noise calculation model:** ISO 9613-2 General

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### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
Sum				250	<b>33.89</b>									
Sum				500	<b>24.25</b>									
Sum				1000	<b>26.84</b>									
Sum				2000	<b>18.58</b>									
Sum				4000	<b>-17.82</b>									
Sum				8000	<b>-130.92</b>									

- Data undefined due to calculation with octave data

Wind speed: 10.0 m/s

### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT1		1 687	1 699	63	<b>21.86</b>	2.00	106.9	0.00	75.60	-	-	0.00	0.00	-
BT1				125	<b>12.52</b>		85.3			0.17	-3.00			72.77
BT1				250	<b>11.89</b>		94.0			0.68	5.85			82.13
BT1				500	<b>13.65</b>		99.6			1.70	8.60			85.90
BT1				1000	<b>9.21</b>		102.0			3.23	14.00			92.83
BT1				2000	<b>14.53</b>		101.4			6.29	5.00			86.89
BT1				4000	<b>5.60</b>		97.7			16.48	0.00			92.08
BT1				8000	<b>-40.46</b>		90.9			55.72	0.00			131.33
BT1					<b>-193.56</b>		80.8			198.77	0.00			274.37
BT2		1 197	1 236	63	<b>25.66</b>	2.00	106.9	0.00	72.84	-	-	0.00	0.00	-
BT2				125	<b>15.33</b>		85.3			0.12	-3.00			69.96
BT2				250	<b>14.94</b>		94.0			0.49	5.75			79.08
BT2				500	<b>16.88</b>		99.6			1.24	8.60			82.67
BT2				1000	<b>12.86</b>		102.0			2.35	14.00			89.19
BT2				2000	<b>19.00</b>		101.4			4.57	5.00			82.41
BT2				4000	<b>12.85</b>		97.7			11.99	0.00			84.83
BT2				8000	<b>-22.51</b>		90.9			40.53	0.00			113.37
BT2					<b>-136.61</b>		80.8			144.59	0.00			217.43
BT3		1 212	1 243	63	<b>25.59</b>	2.00	106.9	0.00	72.89	-	-	0.00	0.00	-
BT3				125	<b>15.28</b>		85.3			0.12	-3.00			70.01
BT3				250	<b>14.88</b>		94.0			0.50	5.76			79.14
BT3				500	<b>16.82</b>		99.6			1.24	8.60			82.73
BT3				1000	<b>12.80</b>		102.0			2.36	14.00			89.25
BT3				2000	<b>18.93</b>		101.4			4.60	5.00			82.48
BT3				4000	<b>12.74</b>		97.7			12.05	0.00			84.94
BT3				8000	<b>-22.78</b>		90.9			40.76	0.00			113.65
BT3					<b>-137.46</b>		80.8			145.39	0.00			218.27
BT4		1 312	1 338	63	<b>24.71</b>	2.00	106.9	0.00	73.53	-	-	0.00	0.00	-
BT4				125	<b>14.63</b>		85.3			0.13	-3.00			70.66
BT4				250	<b>14.15</b>		94.0			0.54	5.80			79.87
BT4				500	<b>16.09</b>		99.6			1.34	8.60			83.47
BT4				1000	<b>11.97</b>		102.0			2.54	14.00			90.07
BT4				2000	<b>17.93</b>		101.4			4.95	5.00			83.48
BT4				4000	<b>11.17</b>		97.7			12.98	0.00			86.51
BT4				8000	<b>-26.55</b>		90.9			43.89	0.00			117.42
BT4					<b>-149.27</b>		80.8			156.55	0.00			230.08
BT5		1 560	1 595	63	<b>22.61</b>	2.00	106.9	0.00	75.06	-	-	0.00	0.00	-
BT5				125	<b>13.07</b>		85.3			0.16	-3.00			72.22
BT5				250	<b>12.48</b>		94.0			0.64	5.84			81.54
BT5				500	<b>14.30</b>		99.6			1.60	8.60			85.25
BT5				1000	<b>9.96</b>		102.0			3.03	14.00			92.09
BT5				2000	<b>15.45</b>		101.4			5.90	5.00			85.96
BT5				4000	<b>7.15</b>		97.7			15.48	0.00			90.53
BT5				8000	<b>-36.52</b>		90.9			52.33	0.00			127.39
BT5					<b>-180.91</b>		80.8			186.67	0.00			261.72
BT6		2 074	2 095	63	<b>19.35</b>	2.00	106.9	0.00	77.42	-	-	0.00	0.00	-
BT6				125	<b>10.66</b>		85.3			0.21	-3.00			74.63
BT6				250	<b>9.91</b>		94.0			0.84	5.85			84.11
BT6				500	<b>11.44</b>		99.6			2.09	8.60			88.12
BT6				1000	<b>6.64</b>		102.0			3.98	14.00			95.40
BT6					<b>11.24</b>		101.4			7.75	5.00			90.17

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## DECIBEL - Detailed results

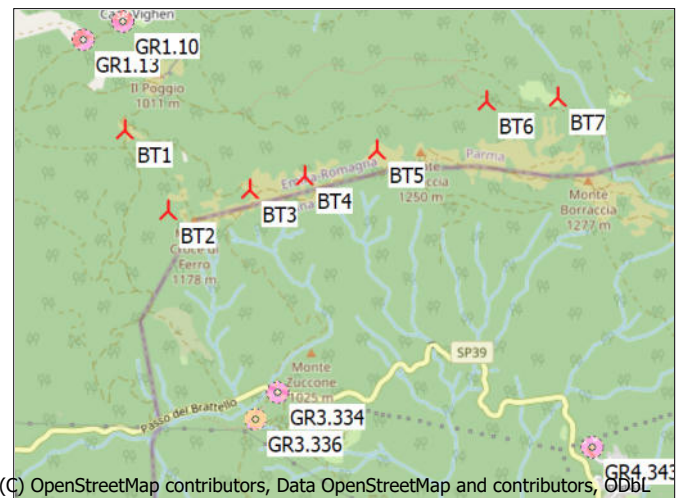
**Calculation:** NOTTURNO **Noise calculation model:** ISO 9613-2 General

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### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT6				2000	-0.06		97.7			20.32	0.00			97.74
BT6				4000	-55.26		90.9			68.70	0.00			146.13
BT6				8000	-241.68		80.8			245.07	0.00			322.49
BT7		2 329	2 348		17.97	2.00	106.9	0.00	78.41	-	-	0.00	0.00	-
BT7				63	9.64		85.3			0.23	-3.00			75.65
BT7				125	8.82		94.0			0.94	5.85			85.20
BT7				250	10.19		99.6			2.35	8.60			89.36
BT7				500	5.17		102.0			4.46	14.00			96.87
BT7				1000	9.31		101.4			8.69	5.00			92.10
BT7				2000	-3.51		97.7			22.77	0.00			101.19
BT7				4000	-64.56		90.9			77.01	0.00			155.42
BT7				8000	-272.30		80.8			274.70	0.00			353.11
Sum					31.79									
Sum				63	50.13									
Sum				125	39.52									
Sum				250	33.86									
Sum				500	24.25									
Sum				1000	26.84									
Sum				2000	18.68									
Sum				4000	-17.72									
Sum				8000	-130.78									

- Data undefined due to calculation with octave data



(C) OpenStreetMap contributors, Data OpenStreetMap and contributors, ODbL

Scale 1:40 000

🚧 New WTG

🏠 Noise sensitive area

### Noise sensitive area: GR4.343 Bratto

Wind speed: 3.0 m/s

### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT1		3 000	3 013		0.64	2.00	93.2	0.00	80.58	-	-	0.00	0.00	-
BT1				63	-7.36		70.5			0.30	-3.00			77.88
BT1				125	-8.26		79.4			1.21	5.85			87.63
BT1				250	-6.98		85.2			3.01	8.60			92.19
BT1				500	-12.22		88.1			5.72	14.00			100.30
BT1				1000	-8.73		88.0			11.15	5.00			96.73
BT1				2000	-24.97		84.8			29.22	0.00			109.80
BT1				4000	-100.73		78.7			98.81	0.00			179.39
BT1				8000	-363.60		69.5			352.47	0.00			433.05
BT2		2 572	2 601		2.47	2.00	93.2	0.00	79.30	-	-	0.00	0.00	-
BT2				63	-6.04		70.5			0.26	-3.00			76.56

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## DECIBEL - Detailed results

**Calculation:** NOTTURNO **Noise calculation model:** ISO 9613-2 General

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### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT2				125	-6.82		79.4			1.04	5.85			86.19
BT2				250	-5.30		85.2			2.60	8.60			90.50
BT2				500	-10.16		88.1			4.94	14.00			98.24
BT2				1000	-5.93		88.0			9.62	5.00			93.93
BT2				2000	-19.70		84.8			25.23	0.00			104.53
BT2				4000	-85.96		78.7			85.31	0.00			164.61
BT2				8000	-314.16		69.5			304.31	0.00			383.62
BT3	2 271	2 298			4.02	2.00	93.2	0.00	78.23	-	-	0.00	0.00	-
BT3				63	-4.94		70.5			0.23	-3.00			75.46
BT3				125	-5.62		79.4			0.92	5.85			85.00
BT3				250	-3.92		85.2			2.30	8.60			89.12
BT3				500	-8.51		88.1			4.37	14.00			96.59
BT3				1000	-3.73		88.0			8.50	5.00			91.73
BT3				2000	-15.69		84.8			22.29	0.00			100.52
BT3				4000	-74.94		78.7			75.37	0.00			153.60
BT3				8000	-277.64		69.5			268.86	0.00			347.09
BT4	2 091	2 119			5.03	2.00	93.2	0.00	77.52	-	-	0.00	0.00	-
BT4				63	-4.22		70.5			0.21	-3.00			74.74
BT4				125	-4.85		79.4			0.85	5.85			84.22
BT4				250	-3.04		85.2			2.12	8.60			88.24
BT4				500	-7.46		88.1			4.03	14.00			95.55
BT4				1000	-2.37		88.0			7.84	5.00			90.36
BT4				2000	-13.25		84.8			20.56	0.00			98.08
BT4				4000	-68.37		78.7			69.51	0.00			147.03
BT4				8000	-256.02		69.5			247.95	0.00			325.47
BT5	1 942	1 986			5.84	2.00	93.2	0.00	76.96	-	-	0.00	0.00	-
BT5				63	-3.64		70.5			0.20	-3.00			74.16
BT5				125	-4.23		79.4			0.79	5.85			83.60
BT5				250	-2.34		85.2			1.99	8.60			87.54
BT5				500	-6.64		88.1			3.77	14.00			94.73
BT5				1000	-1.31		88.0			7.35	5.00			89.31
BT5				2000	-11.39		84.8			19.26	0.00			96.22
BT5				4000	-63.44		78.7			65.14	0.00			142.10
BT5				8000	-239.85		69.5			232.35	0.00			309.31
BT6	1 912	1 948			6.08	2.00	93.2	0.00	76.79	-	-	0.00	0.00	-
BT6				63	-3.47		70.5			0.19	-3.00			73.99
BT6				125	-4.05		79.4			0.78	5.85			83.42
BT6				250	-2.13		85.2			1.95	8.60			87.34
BT6				500	-6.41		88.1			3.70	14.00			94.49
BT6				1000	-1.01		88.0			7.21	5.00			89.00
BT6				2000	-10.86		84.8			18.90	0.00			95.69
BT6				4000	-62.03		78.7			63.90	0.00			140.69
BT6				8000	-235.27		69.5			227.93	0.00			304.73
BT7	1 859	1 897			6.42	2.00	93.2	0.00	76.56	-	-	0.00	0.00	-
BT7				63	-3.23		70.5			0.19	-3.00			73.75
BT7				125	-3.79		79.4			0.76	5.85			83.17
BT7				250	-1.85		85.2			1.90	8.60			87.06
BT7				500	-6.08		88.1			3.60	14.00			94.16
BT7				1000	-0.58		88.0			7.02	5.00			88.58
BT7				2000	-10.13		84.8			18.40	0.00			94.96
BT7				4000	-60.12		78.7			62.21	0.00			138.77
BT7				8000	-229.03		69.5			221.92	0.00			298.48
Sum					13.20									
Sum				63	32.16									
Sum				125	21.42									
Sum				250	15.72									
Sum				500	5.88									
Sum				1000	7.80									
Sum				2000	-3.89									
Sum				4000	-55.51									
Sum				8000	-224.72									

- Data undefined due to calculation with octave data



## DECIBEL - Detailed results

**Calculation:** NOTTURNO **Noise calculation model:** ISO 9613-2 General

Wind speed: 4.0 m/s

### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT1		3 000	3 013		<b>1.24</b>	2.00	93.6	0.00	80.58	-	-	0.00	0.00	-
BT1				63	<b>-6.59</b>		71.3			0.30	-3.00			77.88
BT1				125	<b>-7.56</b>		80.1			1.21	5.85			87.63
BT1				250	<b>-6.38</b>		85.8			3.01	8.60			92.19
BT1				500	<b>-11.72</b>		88.6			5.72	14.00			100.30
BT1				1000	<b>-8.42</b>		88.3			11.15	5.00			96.73
BT1				2000	<b>-24.82</b>		85.0			29.22	0.00			109.80
BT1				4000	<b>-100.66</b>		78.7			98.81	0.00			179.39
BT1				8000	<b>-363.65</b>		69.4			352.47	0.00			433.05
BT2		2 572	2 601		<b>3.05</b>	2.00	93.6	0.00	79.30	-	-	0.00	0.00	-
BT2				63	<b>-5.27</b>		71.3			0.26	-3.00			76.56
BT2				125	<b>-6.12</b>		80.1			1.04	5.85			86.19
BT2				250	<b>-4.70</b>		85.8			2.60	8.60			90.50
BT2				500	<b>-9.66</b>		88.6			4.94	14.00			98.24
BT2				1000	<b>-5.62</b>		88.3			9.62	5.00			93.93
BT2				2000	<b>-19.56</b>		85.0			25.23	0.00			104.53
BT2				4000	<b>-85.89</b>		78.7			85.31	0.00			164.61
BT2				8000	<b>-314.21</b>		69.4			304.31	0.00			383.62
BT3		2 271	2 298		<b>4.58</b>	2.00	93.6	0.00	78.23	-	-	0.00	0.00	-
BT3				63	<b>-4.17</b>		71.3			0.23	-3.00			75.46
BT3				125	<b>-4.92</b>		80.1			0.92	5.85			85.00
BT3				250	<b>-3.32</b>		85.8			2.30	8.60			89.12
BT3				500	<b>-8.01</b>		88.6			4.37	14.00			96.59
BT3				1000	<b>-3.43</b>		88.3			8.50	5.00			91.73
BT3				2000	<b>-15.54</b>		85.0			22.29	0.00			100.52
BT3				4000	<b>-74.87</b>		78.7			75.37	0.00			153.60
BT3				8000	<b>-277.69</b>		69.4			268.86	0.00			347.09
BT4		2 091	2 119		<b>5.58</b>	2.00	93.6	0.00	77.52	-	-	0.00	0.00	-
BT4				63	<b>-3.44</b>		71.3			0.21	-3.00			74.74
BT4				125	<b>-4.15</b>		80.1			0.85	5.85			84.22
BT4				250	<b>-2.44</b>		85.8			2.12	8.60			88.24
BT4				500	<b>-6.96</b>		88.6			4.03	14.00			95.55
BT4				1000	<b>-2.06</b>		88.3			7.84	5.00			90.36
BT4				2000	<b>-13.10</b>		85.0			20.56	0.00			98.08
BT4				4000	<b>-68.31</b>		78.7			69.51	0.00			147.03
BT4				8000	<b>-256.06</b>		69.4			247.95	0.00			325.47
BT5		1 942	1 986		<b>6.38</b>	2.00	93.6	0.00	76.96	-	-	0.00	0.00	-
BT5				63	<b>-2.87</b>		71.3			0.20	-3.00			74.16
BT5				125	<b>-3.53</b>		80.1			0.79	5.85			83.60
BT5				250	<b>-1.74</b>		85.8			1.99	8.60			87.54
BT5				500	<b>-6.14</b>		88.6			3.77	14.00			94.73
BT5				1000	<b>-1.00</b>		88.3			7.35	5.00			89.31
BT5				2000	<b>-11.25</b>		85.0			19.26	0.00			96.22
BT5				4000	<b>-63.37</b>		78.7			65.14	0.00			142.10
BT5				8000	<b>-239.90</b>		69.4			232.35	0.00			309.31
BT6		1 912	1 948		<b>6.62</b>	2.00	93.6	0.00	76.79	-	-	0.00	0.00	-
BT6				63	<b>-2.70</b>		71.3			0.19	-3.00			73.99
BT6				125	<b>-3.35</b>		80.1			0.78	5.85			83.42
BT6				250	<b>-1.53</b>		85.8			1.95	8.60			87.34
BT6				500	<b>-5.91</b>		88.6			3.70	14.00			94.49
BT6				1000	<b>-0.70</b>		88.3			7.21	5.00			89.00
BT6				2000	<b>-10.71</b>		85.0			18.90	0.00			95.69
BT6				4000	<b>-61.96</b>		78.7			63.90	0.00			140.69
BT6				8000	<b>-235.32</b>		69.4			227.93	0.00			304.73
BT7		1 859	1 897		<b>6.95</b>	2.00	93.6	0.00	76.56	-	-	0.00	0.00	-
BT7				63	<b>-2.46</b>		71.3			0.19	-3.00			73.75
BT7				125	<b>-3.09</b>		80.1			0.76	5.85			83.17
BT7				250	<b>-1.25</b>		85.8			1.90	8.60			87.06
BT7				500	<b>-5.58</b>		88.6			3.60	14.00			94.16
BT7				1000	<b>-0.27</b>		88.3			7.02	5.00			88.58
BT7				2000	<b>-9.98</b>		85.0			18.40	0.00			94.96
BT7				4000	<b>-60.05</b>		78.7			62.21	0.00			138.77
BT7				8000	<b>-229.08</b>		69.4			221.92	0.00			298.48

To be continued on next page...

## DECIBEL - Detailed results

**Calculation:** NOTTURNO **Noise calculation model:** ISO 9613-2 General

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### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
Sum					13.75									
Sum				63	32.93									
Sum				125	22.12									
Sum				250	16.32									
Sum				500	6.38									
Sum				1000	8.11									
Sum				2000	-3.74									
Sum				4000	-55.44									
Sum				8000	-224.76									

- Data undefined due to calculation with octave data

Wind speed: 5.0 m/s

### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT1		3 000	3 013	63	4.36	2.00	96.5	0.00	80.58	-	-	0.00	0.00	-
BT1				125	-3.29		74.6			0.30	-3.00			77.88
BT1				250	-4.33		83.3			1.21	5.85			87.63
BT1				500	-3.26		88.9			3.01	8.60			92.19
BT1				1000	-8.75		91.6			5.72	14.00			100.30
BT1				2000	-5.62		91.1			11.15	5.00			96.73
BT1				4000	-22.18		87.6			29.22	0.00			109.80
BT1				8000	-98.25		81.1			98.81	0.00			179.39
BT1					-361.56		71.5			352.47	0.00			433.05
BT2		2 572	2 601	63	6.15	2.00	96.5	0.00	79.30	-	-	0.00	0.00	-
BT2				125	-1.97		74.6			0.26	-3.00			76.56
BT2				250	-2.89		83.3			1.04	5.85			86.19
BT2				500	-1.57		88.9			2.60	8.60			90.50
BT2				1000	-6.69		91.6			4.94	14.00			98.24
BT2				2000	-2.82		91.1			9.62	5.00			93.93
BT2				4000	-16.91		87.6			25.23	0.00			104.53
BT2				8000	-83.48		81.1			85.31	0.00			164.61
BT2					-312.12		71.5			304.31	0.00			383.62
BT3		2 271	2 298	63	7.66	2.00	96.5	0.00	78.23	-	-	0.00	0.00	-
BT3				125	-0.87		74.6			0.23	-3.00			75.46
BT3				250	-1.69		83.3			0.92	5.85			85.00
BT3				500	-0.20		88.9			2.30	8.60			89.12
BT3				1000	-5.04		91.6			4.37	14.00			96.59
BT3				2000	-0.63		91.1			8.50	5.00			91.73
BT3				4000	-12.90		87.6			22.29	0.00			100.52
BT3				8000	-72.46		81.1			75.37	0.00			153.60
BT3					-275.60		71.5			268.86	0.00			347.09
BT4		2 091	2 119	63	8.65	2.00	96.5	0.00	77.52	-	-	0.00	0.00	-
BT4				125	-0.14		74.6			0.21	-3.00			74.74
BT4				250	-0.92		83.3			0.85	5.85			84.22
BT4				500	0.69		88.9			2.12	8.60			88.24
BT4				1000	-4.00		91.6			4.03	14.00			95.55
BT4				2000	0.74		91.1			7.84	5.00			90.36
BT4				4000	-10.46		87.6			20.56	0.00			98.08
BT4				8000	-65.90		81.1			69.51	0.00			147.03
BT4					-253.98		71.5			247.95	0.00			325.47
BT5		1 942	1 986	63	9.44	2.00	96.5	0.00	76.96	-	-	0.00	0.00	-
BT5				125	0.43		74.6			0.20	-3.00			74.16
BT5				250	-0.30		83.3			0.79	5.85			83.60
BT5				500	1.39		88.9			1.99	8.60			87.54
BT5				1000	-3.18		91.6			3.77	14.00			94.73
BT5				2000	1.80		91.1			7.35	5.00			89.31
BT5				4000	-8.60		87.6			19.26	0.00			96.22
BT5				8000	-60.96		81.1			65.14	0.00			142.10
BT5					-237.81		71.5			232.35	0.00			309.31
BT6		1 912	1 948	63	9.67	2.00	96.5	0.00	76.79	-	-	0.00	0.00	-
BT6				125	0.60		74.6			0.19	-3.00			73.99
BT6					-0.12		83.3			0.78	5.85			83.42

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## DECIBEL - Detailed results

**Calculation:** NOTTURNO **Noise calculation model:** ISO 9613-2 General

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### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT6				250	1.59		88.9			1.95	8.60			87.34
BT6				500	-2.94		91.6			3.70	14.00			94.49
BT6				1000	2.10		91.1			7.21	5.00			89.00
BT6				2000	-8.07		87.6			18.90	0.00			95.69
BT6				4000	-59.55		81.1			63.90	0.00			140.69
BT6				8000	-233.23		71.5			227.93	0.00			304.73
BT7		1 859	1 897		10.00	2.00	96.5	0.00	76.56	-	-	0.00	0.00	-
BT7				63	0.84		74.6			0.19	-3.00			73.75
BT7				125	0.14		83.3			0.76	5.85			83.17
BT7				250	1.87		88.9			1.90	8.60			87.06
BT7				500	-2.61		91.6			3.60	14.00			94.16
BT7				1000	2.53		91.1			7.02	5.00			88.58
BT7				2000	-7.34		87.6			18.40	0.00			94.96
BT7				4000	-57.64		81.1			62.21	0.00			138.77
BT7				8000	-226.99		71.5			221.92	0.00			298.48
Sum					16.82									
Sum				63	36.23									
Sum				125	25.35									
Sum				250	19.44									
Sum				500	9.34									
Sum				1000	10.91									
Sum				2000	-1.09									
Sum				4000	-53.03									
Sum				8000	-222.67									

- Data undefined due to calculation with octave data

Wind speed: 6.0 m/s

### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT1		3 000	3 013		7.95	2.00	100.0	0.00	80.58	-	-	0.00	0.00	-
BT1				63	0.35		78.2			0.30	-3.00			77.88
BT1				125	-0.71		86.9			1.21	5.85			87.63
BT1				250	0.34		92.5			3.01	8.60			92.19
BT1				500	-5.22		95.1			5.72	14.00			100.30
BT1				1000	-2.15		94.6			11.15	5.00			96.73
BT1				2000	-18.80		91.0			29.22	0.00			109.80
BT1				4000	-95.05		84.3			98.81	0.00			179.39
BT1				8000	-358.49		74.6			352.47	0.00			433.05
BT2		2 572	2 601		9.73	2.00	100.0	0.00	79.30	-	-	0.00	0.00	-
BT2				63	1.67		78.2			0.26	-3.00			76.56
BT2				125	0.73		86.9			1.04	5.85			86.19
BT2				250	2.03		92.5			2.60	8.60			90.50
BT2				500	-3.16		95.1			4.94	14.00			98.24
BT2				1000	0.65		94.6			9.62	5.00			93.93
BT2				2000	-13.53		91.0			25.23	0.00			104.53
BT2				4000	-80.28		84.3			85.31	0.00			164.61
BT2				8000	-309.06		74.6			304.31	0.00			383.62
BT3		2 271	2 298		11.24	2.00	100.0	0.00	78.23	-	-	0.00	0.00	-
BT3				63	2.77		78.2			0.23	-3.00			75.46
BT3				125	1.93		86.9			0.92	5.85			85.00
BT3				250	3.40		92.5			2.30	8.60			89.12
BT3				500	-1.51		95.1			4.37	14.00			96.59
BT3				1000	2.85		94.6			8.50	5.00			91.73
BT3				2000	-9.52		91.0			22.29	0.00			100.52
BT3				4000	-69.26		84.3			75.37	0.00			153.60
BT3				8000	-272.53		74.6			268.86	0.00			347.09
BT4		2 091	2 119		12.22	2.00	100.0	0.00	77.52	-	-	0.00	0.00	-
BT4				63	3.49		78.2			0.21	-3.00			74.74
BT4				125	2.70		86.9			0.85	5.85			84.22
BT4				250	4.29		92.5			2.12	8.60			88.24
BT4				500	-0.47		95.1			4.03	14.00			95.55
BT4				1000	4.21		94.6			7.84	5.00			90.36

To be continued on next page...

## DECIBEL - Detailed results

**Calculation:** NOTTURNO **Noise calculation model:** ISO 9613-2 General

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### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT4				2000	-7.08		91.0			20.56	0.00			98.08
BT4				4000	-62.70		84.3			69.51	0.00			147.03
BT4				8000	-250.91		74.6			247.95	0.00			325.47
BT5		1 942	1 986		13.00	2.00	100.0	0.00	76.96	-	-	0.00	0.00	-
BT5				63	4.07		78.2			0.20	-3.00			74.16
BT5				125	3.32		86.9			0.79	5.85			83.60
BT5				250	4.99		92.5			1.99	8.60			87.54
BT5				500	0.35		95.1			3.77	14.00			94.73
BT5				1000	5.27		94.6			7.35	5.00			89.31
BT5				2000	-5.22		91.0			19.26	0.00			96.22
BT5				4000	-57.76		84.3			65.14	0.00			142.10
BT5				8000	-234.75		74.6			232.35	0.00			309.31
BT6		1 912	1 948		13.24	2.00	100.0	0.00	76.79	-	-	0.00	0.00	-
BT6				63	4.24		78.2			0.19	-3.00			73.99
BT6				125	3.50		86.9			0.78	5.85			83.42
BT6				250	5.19		92.5			1.95	8.60			87.34
BT6				500	0.59		95.1			3.70	14.00			94.49
BT6				1000	5.58		94.6			7.21	5.00			89.00
BT6				2000	-4.69		91.0			18.90	0.00			95.69
BT6				4000	-56.35		84.3			63.90	0.00			140.69
BT6				8000	-230.17		74.6			227.93	0.00			304.73
BT7		1 859	1 897		13.56	2.00	100.0	0.00	76.56	-	-	0.00	0.00	-
BT7				63	4.48		78.2			0.19	-3.00			73.75
BT7				125	3.75		86.9			0.76	5.85			83.17
BT7				250	5.47		92.5			1.90	8.60			87.06
BT7				500	0.92		95.1			3.60	14.00			94.16
BT7				1000	6.00		94.6			7.02	5.00			88.58
BT7				2000	-3.96		91.0			18.40	0.00			94.96
BT7				4000	-54.44		84.3			62.21	0.00			138.77
BT7				8000	-223.92		74.6			221.92	0.00			298.48
Sum					20.39									
Sum				63	39.87									
Sum				125	28.97									
Sum				250	23.04									
Sum				500	12.87									
Sum				1000	14.38									
Sum				2000	2.28									
Sum				4000	-49.83									
Sum				8000	-219.61									

- Data undefined due to calculation with octave data

Wind speed: 7.0 m/s

### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT1		3 000	3 013		11.20	2.00	103.2	0.00	80.58	-	-	0.00	0.00	-
BT1				63	3.61		81.5			0.30	-3.00			77.88
BT1				125	2.57		90.2			1.21	5.85			87.63
BT1				250	3.59		95.8			3.01	8.60			92.19
BT1				500	-2.02		98.3			5.72	14.00			100.30
BT1				1000	1.05		97.8			11.15	5.00			96.73
BT1				2000	-15.72		94.1			29.22	0.00			109.80
BT1				4000	-92.01		87.4			98.81	0.00			179.39
BT1				8000	-355.54		77.5			352.47	0.00			433.05
BT2		2 572	2 601		12.98	2.00	103.2	0.00	79.30	-	-	0.00	0.00	-
BT2				63	4.93		81.5			0.26	-3.00			76.56
BT2				125	4.01		90.2			1.04	5.85			86.19
BT2				250	5.28		95.8			2.60	8.60			90.50
BT2				500	0.04		98.3			4.94	14.00			98.24
BT2				1000	3.85		97.8			9.62	5.00			93.93
BT2				2000	-10.45		94.1			25.23	0.00			104.53
BT2				4000	-77.23		87.4			85.31	0.00			164.61
BT2				8000	-306.10		77.5			304.31	0.00			383.62

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## DECIBEL - Detailed results

**Calculation:** NOTTURNO **Noise calculation model:** ISO 9613-2 General

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### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT3		2 271	2 298		<b>14.48</b>	2.00	103.2	0.00	78.23	-	-	0.00	0.00	-
BT3				63	<b>6.03</b>		81.5			0.23	-3.00			75.46
BT3				125	<b>5.21</b>		90.2			0.92	5.85			85.00
BT3				250	<b>6.66</b>		95.8			2.30	8.60			89.12
BT3				500	<b>1.69</b>		98.3			4.37	14.00			96.59
BT3				1000	<b>6.05</b>		97.8			8.50	5.00			91.73
BT3				2000	<b>-6.44</b>		94.1			22.29	0.00			100.52
BT3				4000	<b>-66.22</b>		87.4			75.37	0.00			153.60
BT3				8000	<b>-269.58</b>		77.5			268.86	0.00			347.09
BT4		2 091	2 119		<b>15.46</b>	2.00	103.2	0.00	77.52	-	-	0.00	0.00	-
BT4				63	<b>6.76</b>		81.5			0.21	-3.00			74.74
BT4				125	<b>5.98</b>		90.2			0.85	5.85			84.22
BT4				250	<b>7.54</b>		95.8			2.12	8.60			88.24
BT4				500	<b>2.73</b>		98.3			4.03	14.00			95.55
BT4				1000	<b>7.41</b>		97.8			7.84	5.00			90.36
BT4				2000	<b>-4.00</b>		94.1			20.56	0.00			98.08
BT4				4000	<b>-59.65</b>		87.4			69.51	0.00			147.03
BT4				8000	<b>-247.96</b>		77.5			247.95	0.00			325.47
BT5		1 942	1 986		<b>16.24</b>	2.00	103.2	0.00	76.96	-	-	0.00	0.00	-
BT5				63	<b>7.33</b>		81.5			0.20	-3.00			74.16
BT5				125	<b>6.60</b>		90.2			0.79	5.85			83.60
BT5				250	<b>8.24</b>		95.8			1.99	8.60			87.54
BT5				500	<b>3.55</b>		98.3			3.77	14.00			94.73
BT5				1000	<b>8.47</b>		97.8			7.35	5.00			89.31
BT5				2000	<b>-2.14</b>		94.1			19.26	0.00			96.22
BT5				4000	<b>-54.72</b>		87.4			65.14	0.00			142.10
BT5				8000	<b>-231.79</b>		77.5			232.35	0.00			309.31
BT6		1 912	1 948		<b>16.47</b>	2.00	103.2	0.00	76.79	-	-	0.00	0.00	-
BT6				63	<b>7.50</b>		81.5			0.19	-3.00			73.99
BT6				125	<b>6.78</b>		90.2			0.78	5.85			83.42
BT6				250	<b>8.45</b>		95.8			1.95	8.60			87.34
BT6				500	<b>3.79</b>		98.3			3.70	14.00			94.49
BT6				1000	<b>8.78</b>		97.8			7.21	5.00			89.00
BT6				2000	<b>-1.61</b>		94.1			18.90	0.00			95.69
BT6				4000	<b>-53.31</b>		87.4			63.90	0.00			140.69
BT6				8000	<b>-227.21</b>		77.5			227.93	0.00			304.73
BT7		1 859	1 897		<b>16.80</b>	2.00	103.2	0.00	76.56	-	-	0.00	0.00	-
BT7				63	<b>7.74</b>		81.5			0.19	-3.00			73.75
BT7				125	<b>7.04</b>		90.2			0.76	5.85			83.17
BT7				250	<b>8.73</b>		95.8			1.90	8.60			87.06
BT7				500	<b>4.12</b>		98.3			3.60	14.00			94.16
BT7				1000	<b>9.20</b>		97.8			7.02	5.00			88.58
BT7				2000	<b>-0.88</b>		94.1			18.40	0.00			94.96
BT7				4000	<b>-51.39</b>		87.4			62.21	0.00			138.77
BT7				8000	<b>-220.97</b>		77.5			221.92	0.00			298.48
Sum					<b>23.63</b>									
Sum				63	<b>43.13</b>									
Sum				125	<b>32.25</b>									
Sum				250	<b>26.29</b>									
Sum				500	<b>16.07</b>									
Sum				1000	<b>17.58</b>									
Sum				2000	<b>5.36</b>									
Sum				4000	<b>-46.79</b>									
Sum				8000	<b>-216.66</b>									

- Data undefined due to calculation with octave data

Wind speed: 8.0 m/s

### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT1		3 000	3 013		<b>14.06</b>	2.00	106.0	0.00	80.58	-	-	0.00	0.00	-
BT1				63	<b>6.51</b>		84.4			0.30	-3.00			77.88
BT1				125	<b>5.47</b>		93.1			1.21	5.85			87.63

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## DECIBEL - Detailed results

**Calculation:** NOTTURNO **Noise calculation model:** ISO 9613-2 General

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### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT1				250	6.46		98.7			3.01	8.60			92.19
BT1				500	0.84		101.1			5.72	14.00			100.30
BT1				1000	3.79		100.5			11.15	5.00			96.73
BT1				2000	-13.02		96.8			29.22	0.00			109.80
BT1				4000	-89.41		90.0			98.81	0.00			179.39
BT1				8000	-353.05		80.0			352.47	0.00			433.05
BT2		2 572	2 601		15.84	2.00	106.0	0.00	79.30	-	-	0.00	0.00	-
BT2				63	7.83		84.4			0.26	-3.00			76.56
BT2				125	6.91		93.1			1.04	5.85			86.19
BT2				250	8.15		98.7			2.60	8.60			90.50
BT2				500	2.90		101.1			4.94	14.00			98.24
BT2				1000	6.59		100.5			9.62	5.00			93.93
BT2				2000	-7.75		96.8			25.23	0.00			104.53
BT2				4000	-74.63		90.0			85.31	0.00			164.61
BT2				8000	-303.61		80.0			304.31	0.00			383.62
BT3		2 271	2 298		17.33	2.00	106.0	0.00	78.23	-	-	0.00	0.00	-
BT3				63	8.93		84.4			0.23	-3.00			75.46
BT3				125	8.11		93.1			0.92	5.85			85.00
BT3				250	9.53		98.7			2.30	8.60			89.12
BT3				500	4.55		101.1			4.37	14.00			96.59
BT3				1000	8.78		100.5			8.50	5.00			91.73
BT3				2000	-3.74		96.8			22.29	0.00			100.52
BT3				4000	-63.62		90.0			75.37	0.00			153.60
BT3				8000	-267.09		80.0			268.86	0.00			347.09
BT4		2 091	2 119		18.30	2.00	106.0	0.00	77.52	-	-	0.00	0.00	-
BT4				63	9.66		84.4			0.21	-3.00			74.74
BT4				125	8.88		93.1			0.85	5.85			84.22
BT4				250	10.41		98.7			2.12	8.60			88.24
BT4				500	5.60		101.1			4.03	14.00			95.55
BT4				1000	10.15		100.5			7.84	5.00			90.36
BT4				2000	-1.30		96.8			20.56	0.00			98.08
BT4				4000	-57.05		90.0			69.51	0.00			147.03
BT4				8000	-245.47		80.0			247.95	0.00			325.47
BT5		1 942	1 986		19.08	2.00	106.0	0.00	76.96	-	-	0.00	0.00	-
BT5				63	10.23		84.4			0.20	-3.00			74.16
BT5				125	9.50		93.1			0.79	5.85			83.60
BT5				250	11.11		98.7			1.99	8.60			87.54
BT5				500	6.41		101.1			3.77	14.00			94.73
BT5				1000	11.21		100.5			7.35	5.00			89.31
BT5				2000	0.56		96.8			19.26	0.00			96.22
BT5				4000	-52.12		90.0			65.14	0.00			142.10
BT5				8000	-229.30		80.0			232.35	0.00			309.31
BT6		1 912	1 948		19.31	2.00	106.0	0.00	76.79	-	-	0.00	0.00	-
BT6				63	10.40		84.4			0.19	-3.00			73.99
BT6				125	9.68		93.1			0.78	5.85			83.42
BT6				250	11.31		98.7			1.95	8.60			87.34
BT6				500	6.65		101.1			3.70	14.00			94.49
BT6				1000	11.51		100.5			7.21	5.00			89.00
BT6				2000	1.09		96.8			18.90	0.00			95.69
BT6				4000	-50.71		90.0			63.90	0.00			140.69
BT6				8000	-224.72		80.0			227.93	0.00			304.73
BT7		1 859	1 897		19.64	2.00	106.0	0.00	76.56	-	-	0.00	0.00	-
BT7				63	10.64		84.4			0.19	-3.00			73.75
BT7				125	9.94		93.1			0.76	5.85			83.17
BT7				250	11.60		98.7			1.90	8.60			87.06
BT7				500	6.98		101.1			3.60	14.00			94.16
BT7				1000	11.94		100.5			7.02	5.00			88.58
BT7				2000	1.82		96.8			18.40	0.00			94.96
BT7				4000	-48.79		90.0			62.21	0.00			138.77
BT7				8000	-218.48		80.0			221.92	0.00			298.48
Sum					26.47									
Sum				63	46.03									
Sum				125	35.15									

To be continued on next page...



## DECIBEL - Detailed results

**Calculation:** NOTTURNO **Noise calculation model:** ISO 9613-2 General

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### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
Sum				250	29.16									
Sum				500	18.94									
Sum				1000	20.32									
Sum				2000	8.06									
Sum				4000	-44.19									
Sum				8000	-214.17									

- Data undefined due to calculation with octave data

Wind speed: 9.0 m/s

### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT1		3 000	3 013	63	15.01	2.00	106.9	0.00	80.58	-	-	0.00	0.00	-
BT1				125	7.51		85.4			0.30	-3.00			77.88
BT1				250	6.42		94.1			1.21	5.85			87.63
BT1				500	7.39		99.6			3.01	8.60			92.19
BT1				1000	1.74		102.0			5.72	14.00			100.30
BT1				2000	4.69		101.4			11.15	5.00			96.73
BT1				4000	-12.22		97.6			29.22	0.00			109.80
BT1				8000	-88.63		90.8			98.81	0.00			179.39
BT1					-352.37		80.7			352.47	0.00			433.05
BT2		2 572	2 601	63	16.78	2.00	106.9	0.00	79.30	-	-	0.00	0.00	-
BT2				125	8.83		85.4			0.26	-3.00			76.56
BT2				250	7.86		94.1			1.04	5.85			86.19
BT2				500	9.08		99.6			2.60	8.60			90.50
BT2				1000	3.80		102.0			4.94	14.00			98.24
BT2				2000	7.49		101.4			9.62	5.00			93.93
BT2				4000	-6.95		97.6			25.23	0.00			104.53
BT2				8000	-73.85		90.8			85.31	0.00			164.61
BT2					-302.94		80.7			304.31	0.00			383.62
BT3		2 271	2 298	63	18.27	2.00	106.9	0.00	78.23	-	-	0.00	0.00	-
BT3				125	9.93		85.4			0.23	-3.00			75.46
BT3				250	9.06		94.1			0.92	5.85			85.00
BT3				500	10.46		99.6			2.30	8.60			89.12
BT3				1000	5.45		102.0			4.37	14.00			96.59
BT3				2000	9.68		101.4			8.50	5.00			91.73
BT3				4000	-2.94		97.6			22.29	0.00			100.52
BT3				8000	-62.84		90.8			75.37	0.00			153.60
BT3					-266.41		80.7			268.86	0.00			347.09
BT4		2 091	2 119	63	19.24	2.00	106.9	0.00	77.52	-	-	0.00	0.00	-
BT4				125	10.66		85.4			0.21	-3.00			74.74
BT4				250	9.83		94.1			0.85	5.85			84.22
BT4				500	11.34		99.6			2.12	8.60			88.24
BT4				1000	6.50		102.0			4.03	14.00			95.55
BT4				2000	11.05		101.4			7.84	5.00			90.36
BT4				4000	-0.50		97.6			20.56	0.00			98.08
BT4				8000	-56.27		90.8			69.51	0.00			147.03
BT4					-244.79		80.7			247.95	0.00			325.47
BT5		1 942	1 986	63	20.02	2.00	106.9	0.00	76.96	-	-	0.00	0.00	-
BT5				125	11.23		85.4			0.20	-3.00			74.16
BT5				250	10.45		94.1			0.79	5.85			83.60
BT5				500	12.04		99.6			1.99	8.60			87.54
BT5				1000	7.31		102.0			3.77	14.00			94.73
BT5				2000	12.11		101.4			7.35	5.00			89.31
BT5				4000	1.36		97.6			19.26	0.00			96.22
BT5				8000	-51.33		90.8			65.14	0.00			142.10
BT5					-228.63		80.7			232.35	0.00			309.31
BT6		1 912	1 948	63	20.25	2.00	106.9	0.00	76.79	-	-	0.00	0.00	-
BT6				125	11.40		85.4			0.19	-3.00			73.99
BT6				250	10.63		94.1			0.78	5.85			83.42
BT6				500	12.25		99.6			1.95	8.60			87.34
BT6				1000	7.55		102.0			3.70	14.00			94.49
BT6					12.41		101.4			7.21	5.00			89.00

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## DECIBEL - Detailed results

**Calculation:** NOTTURNO **Noise calculation model:** ISO 9613-2 General

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### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT6				2000	1.89		97.6			18.90	0.00			95.69
BT6				4000	-49.93		90.8			63.90	0.00			140.69
BT6				8000	-224.05		80.7			227.93	0.00			304.73
BT7		1 859	1 897		20.57	2.00	106.9	0.00	76.56	-	-	0.00	0.00	-
BT7				63	11.64		85.4			0.19	-3.00			73.75
BT7				125	10.88		94.1			0.76	5.85			83.17
BT7				250	12.53		99.6			1.90	8.60			87.06
BT7				500	7.88		102.0			3.60	14.00			94.16
BT7				1000	12.84		101.4			7.02	5.00			88.58
BT7				2000	2.62		97.6			18.40	0.00			94.96
BT7				4000	-48.01		90.8			62.21	0.00			138.77
BT7				8000	-217.81		80.7			221.92	0.00			298.48
Sum					27.41									
Sum				63	47.03									
Sum				125	36.10									
Sum				250	30.09									
Sum				500	19.84									
Sum				1000	21.22									
Sum				2000	8.86									
Sum				4000	-43.40									
Sum				8000	-213.49									

- Data undefined due to calculation with octave data

Wind speed: 10.0 m/s

### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT1		3 000	3 013		14.97	2.00	106.9	0.00	80.58	-	-	0.00	0.00	-
BT1				63	7.41		85.3			0.30	-3.00			77.88
BT1				125	6.39		94.0			1.21	5.85			87.63
BT1				250	7.36		99.6			3.01	8.60			92.19
BT1				500	1.74		102.0			5.72	14.00			100.30
BT1				1000	4.69		101.4			11.15	5.00			96.73
BT1				2000	-12.12		97.7			29.22	0.00			109.80
BT1				4000	-88.53		90.9			98.81	0.00			179.39
BT1				8000	-352.24		80.8			352.47	0.00			433.05
BT2		2 572	2 601		16.74	2.00	106.9	0.00	79.30	-	-	0.00	0.00	-
BT2				63	8.73		85.3			0.26	-3.00			76.56
BT2				125	7.83		94.0			1.04	5.85			86.19
BT2				250	9.05		99.6			2.60	8.60			90.50
BT2				500	3.80		102.0			4.94	14.00			98.24
BT2				1000	7.49		101.4			9.62	5.00			93.93
BT2				2000	-6.85		97.7			25.23	0.00			104.53
BT2				4000	-73.75		90.9			85.31	0.00			164.61
BT2				8000	-302.80		80.8			304.31	0.00			383.62
BT3		2 271	2 298		18.23	2.00	106.9	0.00	78.23	-	-	0.00	0.00	-
BT3				63	9.83		85.3			0.23	-3.00			75.46
BT3				125	9.03		94.0			0.92	5.85			85.00
BT3				250	10.43		99.6			2.30	8.60			89.12
BT3				500	5.45		102.0			4.37	14.00			96.59
BT3				1000	9.68		101.4			8.50	5.00			91.73
BT3				2000	-2.84		97.7			22.29	0.00			100.52
BT3				4000	-62.74		90.9			75.37	0.00			153.60
BT3				8000	-266.28		80.8			268.86	0.00			347.09
BT4		2 091	2 119		19.21	2.00	106.9	0.00	77.52	-	-	0.00	0.00	-
BT4				63	10.56		85.3			0.21	-3.00			74.74
BT4				125	9.80		94.0			0.85	5.85			84.22
BT4				250	11.31		99.6			2.12	8.60			88.24
BT4				500	6.50		102.0			4.03	14.00			95.55
BT4				1000	11.05		101.4			7.84	5.00			90.36
BT4				2000	-0.40		97.7			20.56	0.00			98.08
BT4				4000	-56.17		90.9			69.51	0.00			147.03
BT4				8000	-244.66		80.8			247.95	0.00			325.47

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## DECIBEL - Detailed results

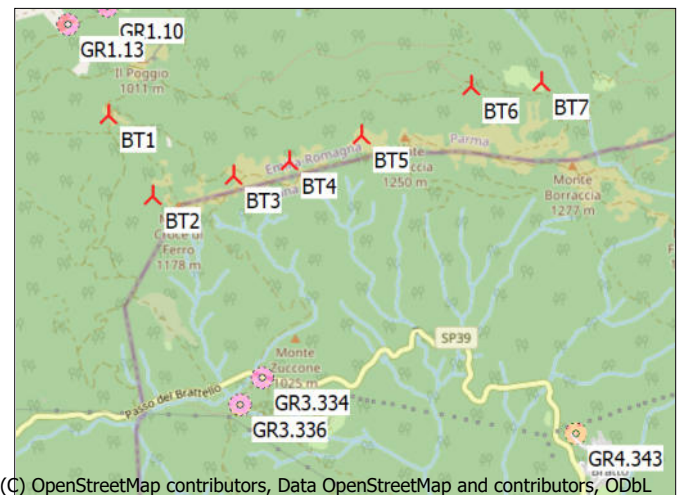
**Calculation:** NOTTURNO **Noise calculation model:** ISO 9613-2 General

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### WTG

No.	Reflection obstacle	Distance [m]	Sound distance [m]	Frequency [Hz]	Calculated [dB(A)]	Uncertainty margin [dB]	LwA,ref [dB(A)]	Dc [dB]	Adiv [dB]	Aatm [dB]	Agr [dB]	Abar [dB]	Amisc [dB]	A [dB]
BT5		1 942	1 986		<b>19.99</b>	2.00	106.9	0.00	76.96	-	-	0.00	0.00	-
BT5				63	<b>11.13</b>		85.3			0.20	-3.00			74.16
BT5				125	<b>10.42</b>		94.0			0.79	5.85			83.60
BT5				250	<b>12.01</b>		99.6			1.99	8.60			87.54
BT5				500	<b>7.31</b>		102.0			3.77	14.00			94.73
BT5				1000	<b>12.11</b>		101.4			7.35	5.00			89.31
BT5				2000	<b>1.46</b>		97.7			19.26	0.00			96.22
BT5				4000	<b>-51.23</b>		90.9			65.14	0.00			142.10
BT5				8000	<b>-228.49</b>		80.8			232.35	0.00			309.31
BT6		1 912	1 948		<b>20.22</b>	2.00	106.9	0.00	76.79	-	-	0.00	0.00	-
BT6				63	<b>11.30</b>		85.3			0.19	-3.00			73.99
BT6				125	<b>10.60</b>		94.0			0.78	5.85			83.42
BT6				250	<b>12.21</b>		99.6			1.95	8.60			87.34
BT6				500	<b>7.55</b>		102.0			3.70	14.00			94.49
BT6				1000	<b>12.41</b>		101.4			7.21	5.00			89.00
BT6				2000	<b>1.99</b>		97.7			18.90	0.00			95.69
BT6				4000	<b>-49.83</b>		90.9			63.90	0.00			140.69
BT6				8000	<b>-223.91</b>		80.8			227.93	0.00			304.73
BT7		1 859	1 897		<b>20.54</b>	2.00	106.9	0.00	76.56	-	-	0.00	0.00	-
BT7				63	<b>11.54</b>		85.3			0.19	-3.00			73.75
BT7				125	<b>10.85</b>		94.0			0.76	5.85			83.17
BT7				250	<b>12.50</b>		99.6			1.90	8.60			87.06
BT7				500	<b>7.88</b>		102.0			3.60	14.00			94.16
BT7				1000	<b>12.84</b>		101.4			7.02	5.00			88.58
BT7				2000	<b>2.72</b>		97.7			18.40	0.00			94.96
BT7				4000	<b>-47.91</b>		90.9			62.21	0.00			138.77
BT7				8000	<b>-217.67</b>		80.8			221.92	0.00			298.48
Sum					<b>27.38</b>									
Sum				63	<b>46.93</b>									
Sum				125	<b>36.07</b>									
Sum				250	<b>30.06</b>									
Sum				500	<b>19.84</b>									
Sum				1000	<b>21.22</b>									
Sum				2000	<b>8.96</b>									
Sum				4000	<b>-43.30</b>									
Sum				8000	<b>-213.36</b>									

- Data undefined due to calculation with octave data



New WTG



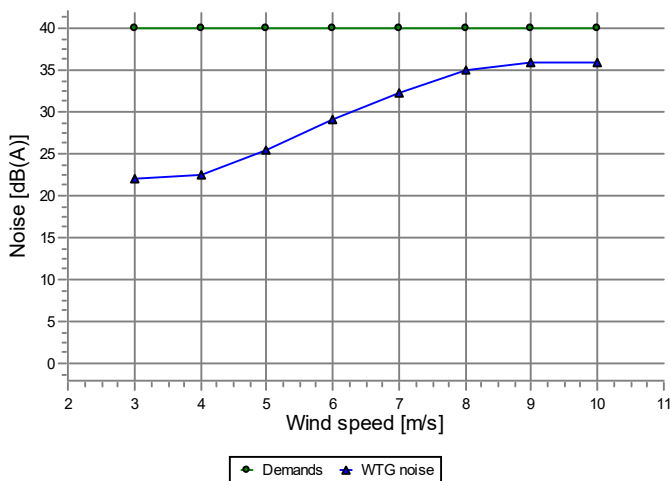
Noise sensitive area

Scale 1:40 000

## DECIBEL - Detailed results, graphic

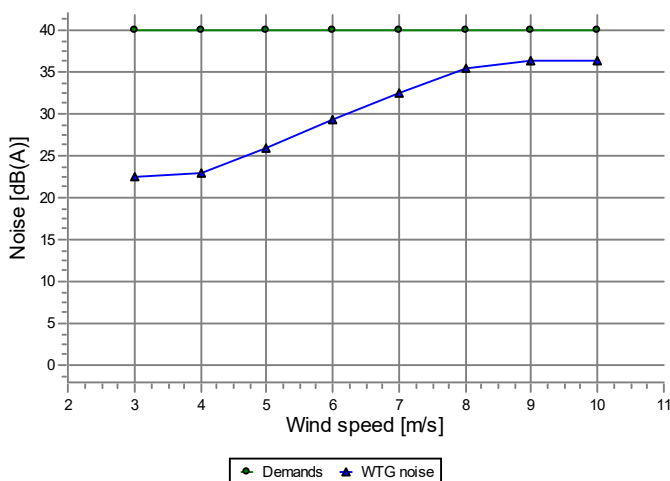
Calculation: NOTTURNO Noise calculation model: ISO 9613-2 General

### GR1.10 Case Vighini



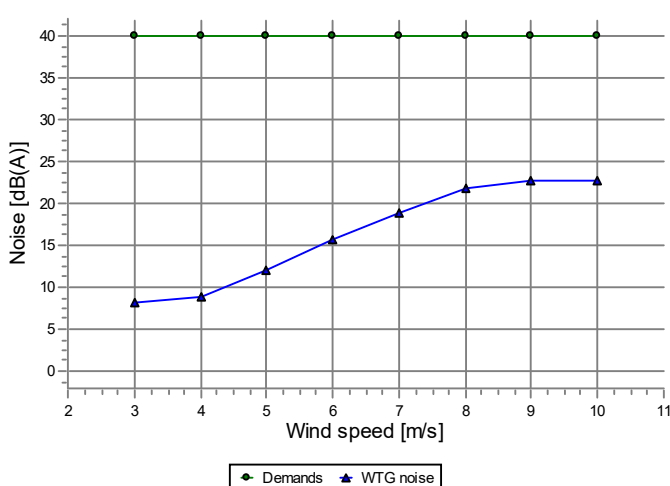
Sound level				
Wind speed	Demands	WTG noise	Uncertainty margin	WTG+Uncertainty margin
[m/s]	[dB(A)]	[dB(A)]	[dB]	[dB(A)]
3.0	40.0	20.1	2.0	22.1
4.0	40.0	20.6	2.0	22.6
5.0	40.0	23.5	2.0	25.5
6.0	40.0	27.0	2.0	29.0
7.0	40.0	30.2	2.0	32.2
8.0	40.0	33.0	2.0	35.0
9.0	40.0	34.0	2.0	36.0
10.0	40.0	33.9	2.0	35.9

### GR1.13 Case Vighini

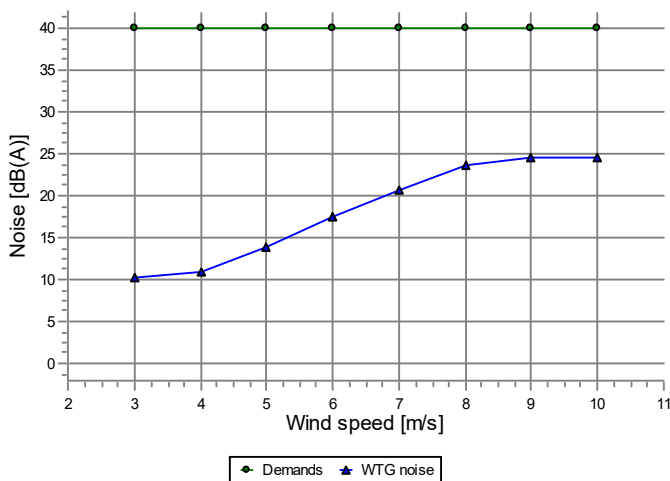


Sound level				
Wind speed	Demands	WTG noise	Uncertainty margin	WTG+Uncertainty margin
[m/s]	[dB(A)]	[dB(A)]	[dB]	[dB(A)]
3.0	40.0	20.4	2.0	22.4
4.0	40.0	20.9	2.0	22.9
5.0	40.0	23.8	2.0	25.8
6.0	40.0	27.3	2.0	29.3
7.0	40.0	30.5	2.0	32.5
8.0	40.0	33.3	2.0	35.3
9.0	40.0	34.2	2.0	36.2
10.0	40.0	34.2	2.0	36.2

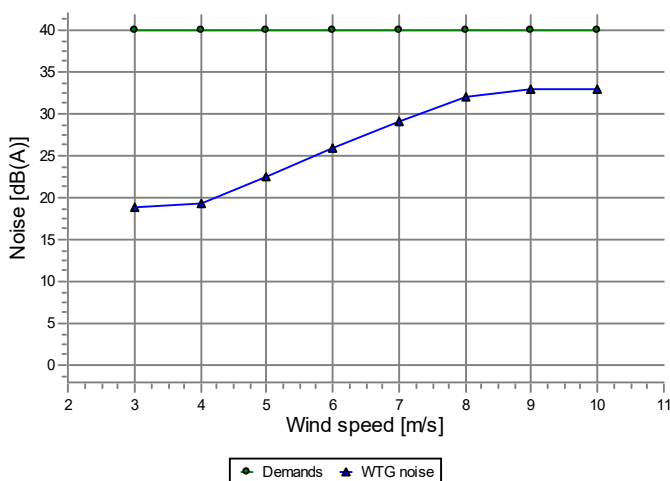
### GR2.101 Valdena



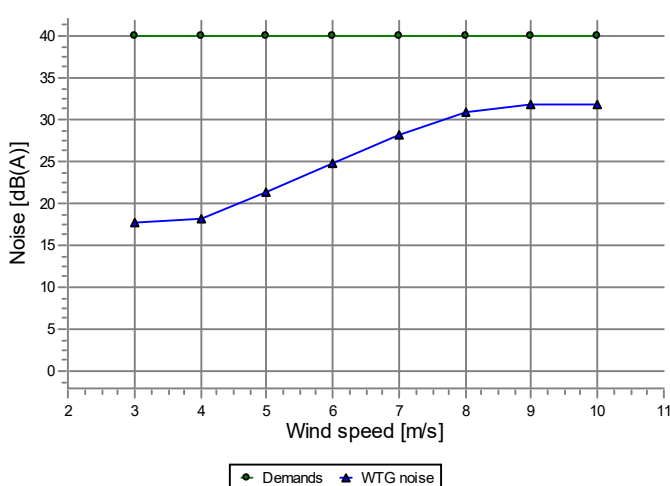
Sound level				
Wind speed	Demands	WTG noise	Uncertainty margin	WTG+Uncertainty margin
[m/s]	[dB(A)]	[dB(A)]	[dB]	[dB(A)]
3.0	40.0	6.3	2.0	8.3
4.0	40.0	6.9	2.0	8.9
5.0	40.0	10.1	2.0	12.1
6.0	40.0	13.6	2.0	15.6
7.0	40.0	16.9	2.0	18.9
8.0	40.0	19.8	2.0	21.8
9.0	40.0	20.7	2.0	22.7
10.0	40.0	20.7	2.0	22.7

**DECIBEL - Detailed results, graphic****Calculation:** NOTTURNO **Noise calculation model:** ISO 9613-2 General**GR2.128 Valderna**

Sound level				
Wind speed	Demands	WTG noise	Uncertainty	WTG+Uncertainty
[m/s]	[dB(A)]	[dB(A)]	margin	margin
			[dB]	[dB(A)]
3.0	40.0	8.2	2.0	10.2
4.0	40.0	8.8	2.0	10.8
5.0	40.0	11.9	2.0	13.9
6.0	40.0	15.5	2.0	17.5
7.0	40.0	18.7	2.0	20.7
8.0	40.0	21.6	2.0	23.6
9.0	40.0	22.5	2.0	24.5
10.0	40.0	22.5	2.0	24.5

**GR3.334 Passo del Brattello**

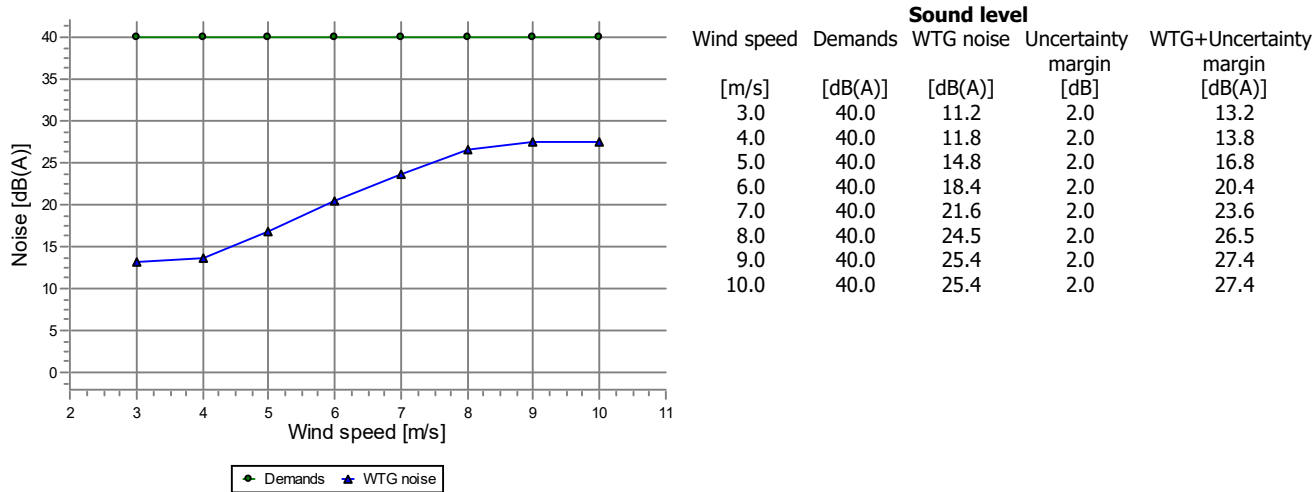
Sound level				
Wind speed	Demands	WTG noise	Uncertainty	WTG+Uncertainty
			margin	margin
[m/s]	[dB(A)]	[dB(A)]	[dB]	[dB(A)]
3.0	40.0	16.9	2.0	18.9
4.0	40.0	17.4	2.0	19.4
5.0	40.0	20.4	2.0	22.4
6.0	40.0	24.0	2.0	26.0
7.0	40.0	27.2	2.0	29.2
8.0	40.0	30.0	2.0	32.0
9.0	40.0	30.9	2.0	32.9
10.0	40.0	30.9	2.0	32.9

**GR3.336 Passo del Brattello**

Sound level				
Wind speed	Demands	WTG noise	Uncertainty	WTG+Uncertainty
			margin	margin
[m/s]	[dB(A)]	[dB(A)]	[dB]	[dB(A)]
3.0	40.0	15.8	2.0	17.8
4.0	40.0	16.3	2.0	18.3
5.0	40.0	19.3	2.0	21.3
6.0	40.0	22.8	2.0	24.8
7.0	40.0	26.1	2.0	28.1
8.0	40.0	28.9	2.0	30.9
9.0	40.0	29.8	2.0	31.8
10.0	40.0	29.8	2.0	31.8

**DECIBEL - Detailed results, graphic**

**Calculation:** NOTTURNO    **Noise calculation model:** ISO 9613-2 General  
**GR4.343 Bratto**





Project:

**230515 Modello Borgo Taro per acustica**

Licensed user:

**MORI MANTOVANI ASSOCIATI SRL**

VIA STRASBURGO 18A

IT-43123 PARMA

+390521239944

GIULIO BARTOLI / giulio@morimantovani.it

Calculated:

02/06/2023 13:09/3.6.366

## DECIBEL - Assumptions for noise calculation

**Calculation:** NOTTURNO

**Noise calculation model:**

ISO 9613-2 General

**Wind speed (in hubheight):**

3.0 m/s - 10.0 m/s, step 1.0 m/s

**Ground attenuation:**

General, Ground factor: 1.0

**Meteorological coefficient, C0:**

0.0 dB

**Type of demand in calculation:**

1: WTG noise is compared to demand (DK, DE, SE, NL etc.)

**Noise values in calculation:**

All noise values are mean values (Lwa) (Normal)

**Pure tones:**

Fixed penalty added to source noise of WTGs with pure tones

WTG catalogue

**Height above ground level, when no value in NSA object:**

0.0 m; Don't allow override of model height with height from NSA object

**Uncertainty margin:**

2.0 dB; Uncertainty margin in NSA has priority

**Deviation from "official" noise demands. Negative is more restrictive, positive is less restrictive.:**

0.0 dB(A)

**Noise reflections according to ISO 9613-2 included**

### Octave data required

Frequency dependent air absorption

63	125	250	500	1 000	2 000	4 000	8 000
[dB/km]	[dB/km]	[dB/km]	[dB/km]	[dB/km]	[dB/km]	[dB/km]	[dB/km]
0.10	0.40	1.00	1.90	3.70	9.70	32.80	117.00

All coordinates are in

Geo [deg]-WGS84

**WTG:** VESTAS V136-4.2 4200 136.0 !O!

**Noise:** Level V136-4.2MW PO1-0S

Source      Source/Date    Creator    Edited

Manufacturer   16/05/2023    USER    16/05/2023 14:45

Status	Wind speed [m/s]	LwA,ref [dB(A)]	Pure tones	Octave data							
				63	125	250	500	1000	2000	4000	8000
				[dB]	[dB]	[dB]	[dB]	[dB]	[dB]	[dB]	[dB]
From Windcat	3.0	93.2	No	70.5	79.4	85.2	88.1	88.0	84.8	78.7	69.5
From Windcat	4.0	93.6	No	71.3	80.1	85.8	88.6	88.3	85.0	78.7	69.4
From Windcat	5.0	96.5	No	74.6	83.3	88.9	91.6	91.1	87.6	81.1	71.5
From Windcat	6.0	100.0	No	78.2	86.9	92.5	95.1	94.6	91.0	84.3	74.6
From Windcat	7.0	103.2	No	81.5	90.2	95.8	98.3	97.8	94.1	87.4	77.5
From Windcat	8.0	106.0	No	84.4	93.1	98.7	101.1	100.5	96.8	90.0	80.0
From Windcat	9.0	106.9	No	85.4	94.1	99.6	102.0	101.4	97.6	90.8	80.7
From Windcat	10.0	106.9	No	85.3	94.0	99.6	102.0	101.4	97.7	90.9	80.8

### Noise sensitive area: GR1.10 Case Vighini

**Predefined calculation standard:**

**Immission height(a.g.l.):** Use standard value from calculation model

**Uncertainty margin:** Use default value from calculation model

**Noise demand:** 40.0 dB(A)

**Distance demand:** 20\*RD

### Noise sensitive area: GR1.13 Case Vighini

**Predefined calculation standard:**

**Immission height(a.g.l.):** Use standard value from calculation model

**Uncertainty margin:** Use default value from calculation model

**Noise demand:** 40.0 dB(A)

**Distance demand:** 20\*RD

Project:

**230515 Modello Borgo Taro per acustica**

Licensed user:

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VIA STRASBURGO 18A

IT-43123 PARMA

+390521239944

GIULIO BARTOLI / giulio@morimantovani.it

Calculated:

02/06/2023 13:09/3.6.366

## DECIBEL - Assumptions for noise calculation

**Calculation:** NOTTURNNO

**Noise sensitive area:** GR2.101 Valdena

**Predefined calculation standard:**

**Immission height(a.g.l.):** Use standard value from calculation model

**Uncertainty margin:** Use default value from calculation model

**Noise demand:** 40.0 dB(A)

**Distance demand:** 20\*RD

**Noise sensitive area:** GR2.128 Valdena

**Predefined calculation standard:**

**Immission height(a.g.l.):** Use standard value from calculation model

**Uncertainty margin:** Use default value from calculation model

**Noise demand:** 40.0 dB(A)

**Distance demand:** 20\*RD

**Noise sensitive area:** GR3.334 Passo del Brattello

**Predefined calculation standard:**

**Immission height(a.g.l.):** Use standard value from calculation model

**Uncertainty margin:** Use default value from calculation model

**Noise demand:** 40.0 dB(A)

**Distance demand:** 20\*RD

**Noise sensitive area:** GR3.336 Passo del Brattello

**Predefined calculation standard:**

**Immission height(a.g.l.):** Use standard value from calculation model

**Uncertainty margin:** Use default value from calculation model

**Noise demand:** 40.0 dB(A)

**Distance demand:** 20\*RD

**Noise sensitive area:** GR4.343 Bratto

**Predefined calculation standard:**

**Immission height(a.g.l.):** Use standard value from calculation model

**Uncertainty margin:** Use default value from calculation model

**Noise demand:** 40.0 dB(A)

**Distance demand:** 20\*RD

**No obstacles used for reflection**

Project:

**230515 Modello Borgo Taro per acustica**

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GIULIO BARTOLI / giulio@morimantovani.it

Calculated:

02/06/2023 13:09/3.6.366

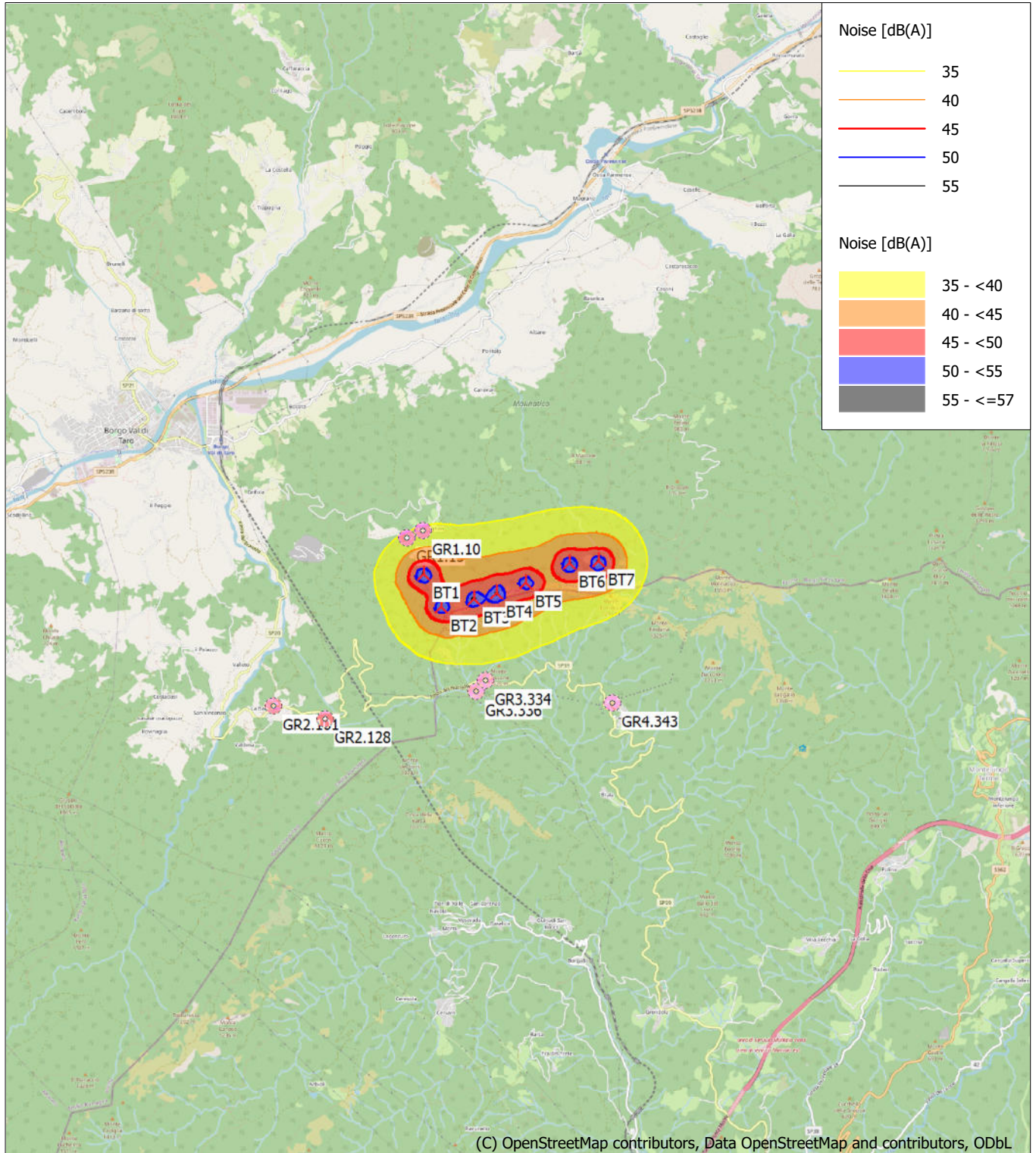
## **DECIBEL - Reflections details**

**Calculation:** NOTTURNO

**No obstacles used for reflection**

## DECIBEL - Map 10.0 m/s

Calculation: NOTTURNO

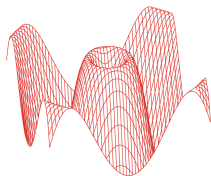


Map: EMD OpenStreetMap, Print scale 1:75 000, Map center Geo WGS84 East: 9.829244° E North: 44.469417° N  
 New WTG  
 Noise sensitive area  
 Noise calculation model: ISO 9613-2 General. Wind speed: 10.0 m/s (2.0 dB uncertainty added)  
 Height above sea level from active line object



## APPENDICE D

*Certificati di taratura della strumentazione fonometrica utilizzata*



**L.C.E. S.r.l. a Socio Unico**  
Via dei Platani, 7/9 Opera (MI)  
T. 02 57602858 - [www.lce.it](http://www.lce.it) - [info@lce.it](mailto:info@lce.it)

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LAT N° 068

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Page 1 of 9

**CERTIFICATO DI TARATURA LAT 068 50683-A**  
*Certificate of Calibration LAT 068 50683-A*

- data di emissione <i>date of issue</i>	2023-03-31
- cliente <i>customer</i>	AESSE AMBIENTE SRL 20090 - TREZZANO S/NAVIGLIO (MI)
- destinatario <i>receiver</i>	MORI MANTOVANI ASSOCIATI SRL 43123 - PARMA (PR)

Si riferisce a

<i>Referring to</i>	
- oggetto <i>item</i>	Analizzatore
- costruttore <i>manufacturer</i>	01-dB
- modello <i>model</i>	FUSION
- matricola <i>serial number</i>	15058
- data di ricevimento oggetto <i>date of receipt of item</i>	2023-03-31
- data delle misure <i>date of measurements</i>	2023-03-31
- registro di laboratorio <i>laboratory reference</i>	Reg. 03

Il presente certificato di taratura è emesso in base all'accreditamento LAT N° 068 rilasciato in accordo ai decreti attuativi della legge n. 273/1991 che ha istituito il Sistema Nazionale di Taratura (SNT). ACCREDIA attesta le capacità di misura e di taratura, le competenze metrologiche del Centro e la riferibilità delle tarature eseguite ai campioni nazionali e internazionali delle unità di misura del Sistema Internazionale delle Unità (SI).

Questo certificato non può essere riprodotto in modo parziale, salvo espressa autorizzazione scritta da parte del Centro.

*This certificate of calibration is issued in compliance with the accreditation LAT N° 068 granted according to decrees connected with Italian law No. 273/1991 which has established the National Calibration System. ACCREDIA attests the calibration and measurement capability, the metrological competence of the Centre and the traceability of calibration results to the national and international standards of the International System of Units (SI). This certificate may not be partially reproduced, except with the prior written permission of the issuing Centre.*

I risultati di misura riportati nel presente Certificato sono stati ottenuti applicando le procedure di taratura citate alla pagina seguente, dove sono specificati anche i campioni o gli strumenti che garantiscono la catena di riferibilità del Centro e i rispettivi certificati di taratura in corso di validità. Essi si riferiscono esclusivamente all'oggetto in taratura e sono validi nel momento e nelle condizioni di taratura, salvo diversamente specificato.

*The measurement results reported in this Certificate were obtained following the calibration procedures given in the following page, where the reference standards or instruments are indicated which guarantee the traceability chain of the laboratory, and the related calibration certificates in the course of validity are indicated as well. They relate only to the calibrated item and they are valid for the time and conditions of calibration, unless otherwise specified.*

Le incertezze di misura dichiarate in questo documento sono state determinate conformemente alla Guida ISO/IEC 98 e al documento EA-4/02. Solitamente sono espresse come incertezza estesa ottenuta moltiplicando l'incertezza tipo per il fattore di copertura k corrispondente ad un livello di fiducia di circa il 95 %. Normalmente tale fattore k vale 2.

*The measurement uncertainties stated in this document have been determined according to the ISO/IEC Guide 98 and to EA-4/02. Usually, they have been estimated as expanded uncertainty obtained multiplying the standard uncertainty by the coverage factor k corresponding to a confidence level of about 95%. Normally, this factor k is 2.*

Direzione Tecnica  
(Approving Officer)





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T. 02 57602858 - [www.lce.it](http://www.lce.it) - [info@lce.it](mailto:info@lce.it)

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Page 2 of 9

## CERTIFICATO DI TARATURA LAT 068 50683-A Certificate of Calibration LAT 068 50683-A

### Di seguito vengono riportate le seguenti informazioni:

- la descrizione dell'oggetto in taratura (se necessaria);
- l'identificazione delle procedure in base alle quali sono state eseguite le tarature;
- gli strumenti/campioni che garantiscono la riferibilità del Centro;
- gli estremi dei certificati di taratura di tali campioni e l'Ente che li ha emessi;
- il luogo di taratura (se effettuata fuori dal Laboratorio);
- le condizioni ambientali e di taratura;
- i risultati delle tarature e la loro incertezza estesa.

### In the following, information is reported about:

- description of the item to be calibrated (if necessary);
- technical procedures used for calibration performed;
- instruments or measurement standards which guarantee the traceability chain of the Centre;
- relevant calibration certificates of those standards with the issuing Body;
- site of calibration (if different from Laboratory);
- calibration and environmental conditions;
- calibration results and their expanded uncertainty.

## Strumenti sottoposti a verifica Instrumentation under test

Strumento	Costruttore	Modello	Matricola
Analizzatore	01-dB	FUSION	15058
Kit per esterni	01-dB	DMK01	2214118
Preamplificatore	01-dB	PRE22	2214118
Cavo di prolunga	Tasker	C8015	0001
Nosecone	01-dB	RA0208	n.p.
Microfono	G.R.A.S.	40CD	471000

## Procedure tecniche, norme e campioni di riferimento Technical procedures, Standards and Traceability

I risultati di misura riportati nel presente Certificato sono stati ottenuti applicando la procedura di taratura N. PTL 08 Rev. 1.1.

Le verifiche effettuate sull'oggetto della taratura sono in accordo con quanto previsto dalla norma CEI EN 61672-3:2014.

I limiti riportati sono relativi alla classe di appartenenza dello strumento come definito nella norma CEI EN 61672-1:2014.

Nella tabella sottostante vengono riportati gli estremi dei campioni di riferimento dai quali ha inizio la catena della riferibilità del Centro.

Strumento	Matricola	Certificato	Data taratura	Data scadenza
Microfono Brüel & Kjaer 4180	1627793	I.N.R.I.M. 23-0117-02	2023-02-09	2024-02-09
Stazione meteo Ahlborn Almemo 2590+FHAD46-C2L00	H17121184+17110098	1011010_2023_ACCR_MC	2023-01-18	2024-01-18
Multimetro Hewlett Packard 3458A	2823A24857	LAT 019 68708	2022-05-31	2023-05-31
Barometro digitale DRUCK DPI 150	3268333	LAT 128P-999/22	2022-11-21	2023-11-21
Pistonofono Brüel & Kjaer 4228	1681361	I.N.R.I.M. 23-0117-03	2023-02-09	2024-02-09

## Condizioni ambientali durante le misure Environmental parameters during measurements

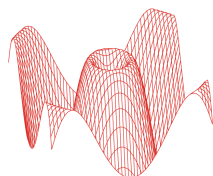
Parametro	Di riferimento	Intervallo di validità	All'inizio delle misure	Alla fine delle misure
Temperatura / °C	23,0	da 20 a 26	24,9	25,1
Umidità / %	50,0	da 30 a 70	48,9	48,6
Pressione / hPa	1013,3	da 800 a 1050	1001,1	1000,2

Nella determinazione dell'incertezza non è stata presa in considerazione la stabilità nel tempo dell'oggetto in taratura.

Sullo strumento in esame sono state eseguite misure sia per via elettrica che per via acustica. Le misure per via elettrica sono state effettuate sostituendo alla capsula microfonica un adattatore capacitivo con impedenza elettrica equivalente a quella del microfono.

Tutti i dati riportati nel presente Certificato sono espressi in Decibel (dB). I valori di pressione sonora assoluta sono riferiti a 20 uPa.

Il numero di decimali riportato in alcune prove può differire dal numero di decimali visualizzati sullo strumento in taratura in quanto i valori riportati nel presente Certificato possono essere ottenuti dalla media di più letture.



**CERTIFICATO DI TARATURA LAT 068 50683-A**  
*Certificate of Calibration LAT 068 50683-A*

**Capacità metrologiche del Centro**  
**Metrological capabilities of the Laboratory**

Nella tabella vengono riportate le capacità metrologiche del Centro per le grandezze acustiche e le relative incertezze ad esse associate.

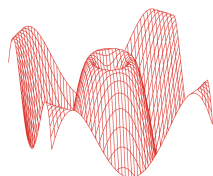
Grandezza	Strumento in taratura	Campo di misura	Condizioni di misura	Incertezza (*)
Livello di pressione acustica	Pistonofoni IEC 60942:2003 Livello di pressione acustica Frequenza	da 114 dB a 140 dB da 160 Hz a 315 Hz	da 160 Hz a 315 Hz da 114 dB a 140 dB	0,10 dB 0,04 %
	Pistonofoni IEC 60942:2017 Livello di pressione acustica Frequenza	da 94 dB a 140 dB da 160 Hz a 1,25 kHz	da 160 Hz a 1,25 kHz da 94 dB a 140 dB	0,10 dB 0,04 %
	Calibratori acustici IEC 60942:2003 Livello di pressione acustica Frequenza	da 94 dB a 114 dB da 160 Hz a 1,25 kHz	da 160 Hz a 1,25 kHz da 94 dB a 114 dB	0,10 dB 0,05 %
	Calibratori acustici IEC 60942:2017 Livello di pressione acustica Frequenza	da 90 dB a 125 dB da 160 Hz a 1,25 kHz	da 160 Hz a 1,25 kHz da 94 dB a 140 dB	0,10 dB 0,04 %
	Calibratori multifrequenza <sup>(1)</sup> Livello di pressione acustica Frequenza	da 94 dB a 140 dB da 31,5 Hz a 16 kHz	da 31,5 Hz a 16 kHz da 94 dB a 140 dB	da 0,10 dB a 0,49 dB 0,04 %
	Ponderazione "inversa A" Correzioni pressione/campo libero microfoni	da 94 dB a 114 dB da 94 dB a 114 dB	da 31,5 Hz a 16 kHz da 31,5 Hz a 16 kHz	0,15 dB 0,12 dB
	Fonometri <sup>(2)</sup>	da 20 dB a 155 dB	da 31,5 Hz a 16 kHz	da 0,14 dB a 0,84 dB
	Fonometri <sup>(3)</sup>	da 20 dB a 150 dB	da 63 Hz a 16 kHz	da 0,07 dB a 0,45 dB
	Filtri a bande di terzi di ottava IEC 61260:1995 Filtri a bande di ottava IEC 61260:1995	da 20 dB a 150 dB da 20 dB a 150 dB	da 20 Hz a 20 kHz da 31,5 Hz a 8 kHz	da 0,1 dB a 1,0 dB da 0,1 dB a 1,0 dB
	Filtri a bande di terzi di ottava IEC 61260-3:2016 Filtri a bande di ottava IEC 61260-3:2016	da 20 dB a 150 dB da 20 dB a 150 dB	da 20 Hz a 20 kHz da 31,5 Hz a 16 kHz	da 0,19 dB a 0,50 dB da 0,19 dB a 0,50 dB
Sensibilità alla pressione acustica	Microfoni LS1 e LS2	124 dB	250 Hz	0,09 dB
	Microfoni LS2	94 dB	da 31,5 Hz a 16 kHz	da 0,11 dB a 0,22 dB
	Microfoni WS2	94 dB	da 31,5 Hz a 16 kHz	da 0,11 dB a 0,22 dB
	Microfoni WS2 (risposta di frequenza corretta per campo libero)	94 dB	da 31,5 Hz a 16 kHz	da 0,12 dB a 0,83 dB

(\*) L'incertezza di misura è dichiarata come incertezza estesa corrispondente al livello di fiducia al 95% ed è ottenuta moltiplicando l'incertezza tipo per il fattore di copertura k specificato.

<sup>(1)</sup> Calibratori conformi sia alla IEC 60942:2003 che alla IEC 60942:2017.

<sup>(2)</sup> Fonometri conformi solamente alle norme IEC 60651:1979 e IEC 60804:2000.

<sup>(3)</sup> Fonometri conformi alla norma IEC 61672-1:2002 e alla IEC 61672-1:2013.



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**CERTIFICATO DI TARATURA LAT 068 50683-A**  
*Certificate of Calibration LAT 068 50683-A*

## 1. Documentazione

- La versione del firmware caricato sullo strumento in taratura è: 2.75 - 2.12.
- Manuale di istruzioni DOC1131 - Febbraio 2018 M fornito dal costruttore dello strumento.
- Campo di misura di riferimento (nominale): 24,0 - 134,0 dB - Livello di pressione sonora di riferimento: 94,0 dB - Frequenza di verifica 1000 Hz.
- I dati di correzione per lo schermo controvento sono stati ottenuti dal manuale dello strumento.
- I dati di correzione del microfono 40CD per campo libero a 90 gradi con nose cone, windscreen e sistema da esterni DMK01 sono stati forniti dal costruttore dello strumento.
- Lo strumento ha completato con esito positivo le prove di valutazione del modello applicabili della IEC 61672-3:2013. Lo strumento risulta Omologato con certificato DE-16-M-PTB-0006 Revisione 2 del 06 Dicembre 2018 emesso da PTB.
- Lo strumento sottoposto alle prove ha superato con esito positivo le prove periodiche della classe 1 della IEC 61672-3:2013, per le condizioni ambientali nelle quali esse sono state eseguite. Poichè è disponibile la prova pubblica, da parte di un'organizzazione di prova indipendente responsabile dell'approvazione dei risultati delle prove di valutazione del modello eseguite secondo la IEC 61672-2:2013, per dimostrare che il modello di fonometro è risultato completamente conforme alle prescrizioni della IEC 61672-1:2013, il fonometro sottoposto alle prove è conforme alle prescrizioni della classe 1 della IEC 61672-1:2013.

## 2. Ispezione preliminare ed elenco prove effettuate

**Descrizione:** Nelle tabelle sottostanti vengono riportati i risultati dei controlli preliminari e l'elenco delle prove effettuate sulla strumentazione in taratura.

Controllo	Esito
Ispezione visiva iniziale	OK
Integrità meccanica	OK
Integrità funzionale	OK
Equilibrio termico	OK
Alimentazione	OK

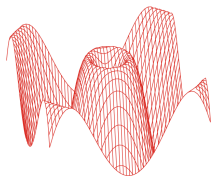
Prova	Esito
Rumore autogenerato	Positivo
Ponderazioni di frequenza con segnali acustici	Positivo
Ponderazioni di frequenza con segnali elettrici	Positivo
Ponderazioni di frequenza e temporali a 1 kHz	Positivo
Selettore campo misura	Non presente
Linearità livello campo misura riferimento	Positivo
Treni d'onda	Positivo
Livello sonoro di picco C	Positivo
Indicazione di sovraccarico	Positivo
Stabilità ad alti livelli	Positivo
Stabilità a lungo termine	Positivo

## 3. Indicazione alla frequenza di verifica della taratura (Calibrazione)

**Descrizione:** Prima di avviare la procedura di taratura dello strumento in esame si provvede alla verifica della calibrazione mediante l'applicazione di un idoneo calibratore acustico. Se necessario viene effettuata una nuova calibrazione come specificato dal costruttore.

**Impostazioni:** Campo di misura di riferimento, funzione calibrazione, se disponibile, altrimenti pesatura di frequenza C e ponderazione temporale Fast o Slow o in alternativa media temporale.

Calibrazione	
Calibratore acustico utilizzato	Quest QC-20 sn. QF2110036
Certificato del calibratore utilizzato	LAT 068 49625-A del 2022-09-05
Frequenza nominale del calibratore	1000,0 Hz
Livello atteso	94,1 dB
Livello indicato dallo strumento prima della calibrazione	93,5 dB
Livello indicato dallo strumento dopo la calibrazione	94,1 dB
E' stata effettuata una nuova calibrazione	SI



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#### 4. Rumore autogenerato

**Descrizione:** Viene verificato il rumore autogenerato dallo strumento. Per la verifica del rumore elettrico, la capacità equivalente di ingresso viene cortocircuitata tramite un apposito adattatore capacitivo di capacità paragonabile a quella del microfono. Per la verifica del rumore acustico devono essere montati anche eventuali accessori.

**Impostazioni:** Media temporale, campo di misura più sensibile. La verifica del rumore autogenerato con microfono installato viene invece effettuata installando il microfono ed eventuali accessori con lo strumento impostato nel campo di misura più sensibile, media temporale e ponderazione di frequenza A.

**Lecture:** Per ciascuna ponderazione di frequenza di cui è dotato lo strumento, viene rilevato il livello sonoro con media temporale mediato per 30 s, o per un periodo superiore se così richiesto dal manuale di istruzioni.

Ponderazione di frequenza	Tipo di rumore	Rumore dB
A	Elettrico	11,0
C	Elettrico	11,5
Z	Elettrico	20,5
A	Acustico	17,2

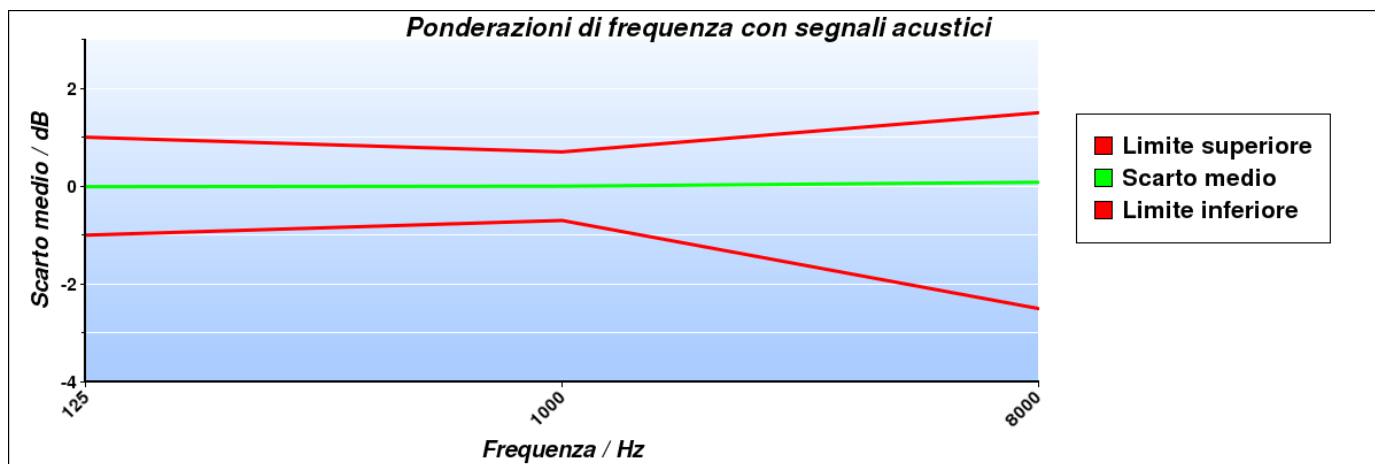
#### 5. Prove di ponderazione di frequenza con segnali acustici

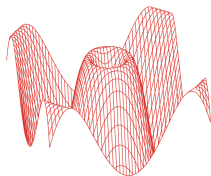
**Descrizione:** Tramite un calibratore multifrequenza, si inviano al microfono dei segnali acustici sinusoidali con un livello nominale compreso tra 94 dB e 114 dB alle frequenze di 125 Hz, 1000 Hz e 8000 Hz al fine di verificare la risposta acustica dell'intera catena di misura. Gli scarti riportati nella tabella successiva sono riferiti al valore a 1000 Hz. L'origine delle eventuali correzioni applicate è riportata nel paragrafo "Documentazione".

**Impostazioni:** Ponderazione di frequenza C, ponderazione temporale Fast, campo di misura di riferimento e indicazione Lp.

**Lecture:** Per ciascuna frequenza di prova, vengono riportati i livelli letti sullo strumento in taratura.

Frequenza nominale Hz	Correzione livello dB	Correzione microfono dB	Correzione accessorio dB	Lettura corretta dB	Ponderazione C rilevata dB	Ponderazione C teorica dB	Incertezza dB	Scarto medio dB	Limiti Accettabilità Classe 1 / dB
125	-0,08	-0,12	-0,02	93,98	-0,21	-0,20	0,26	-0,01	±1,0
1000	0,00	-0,09	-0,18	94,19	0,00	0,00	0,26	Riferimento	±0,7
8000	-0,17	-0,32	-1,62	91,27	-2,92	-3,00	0,45	0,08	+1,5/-2,5





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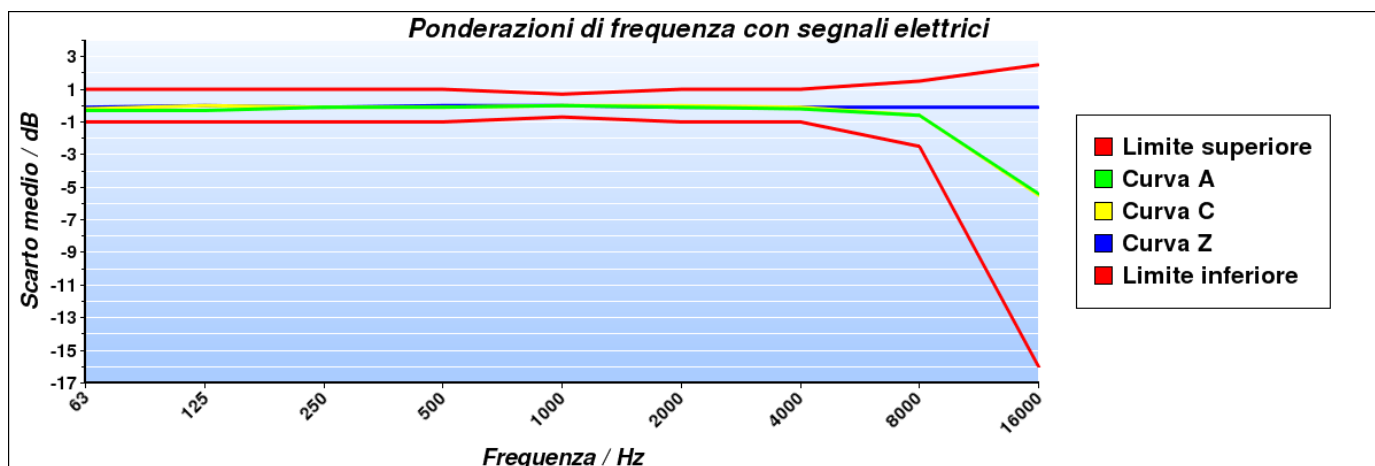
## 6. Prove delle ponderazioni di frequenza con segnali elettrici

**Descrizione:** Le ponderazioni di frequenza devono essere determinate in rapporto alla risposta ad 1 kHz utilizzando segnali di ingresso elettrici sinusoidali regolati per fornire una indicazione che sia 45 dB inferiore al limite superiore del campo di misura di riferimento, e per tutte le tre ponderazioni di frequenza tra A, C, Z e Piatta delle quali lo strumento è dotato.

**Impostazioni:** Ponderazione temporale Fast, campo di misura di riferimento, tutte le ponderazioni di frequenza disponibili tra A, C, Z e Piatta

**Lecture:** Per ciascuna ponderazione di frequenza da verificare, viene rilevata la differenza tra il livello di prova a ciascuna frequenza e il riferimento ad 1 kHz. Eventuali correzioni specificate dal costruttore devono essere considerate.

Frequenza nominale Hz	Curva A Scarto medio dB	Curva C Scarto medio dB	Curva Z Scarto medio dB	Incertezza dB	Limiti accettabilità Classe 1 / dB
63	-0,30	-0,20	-0,10	0,14	±1,0
125	-0,30	0,00	0,00	0,14	±1,0
250	-0,10	-0,10	-0,10	0,14	±1,0
500	-0,10	-0,10	0,00	0,14	±1,0
1000	0,00	0,00	0,00	0,14	±0,7
2000	-0,10	0,00	-0,10	0,14	±1,0
4000	-0,20	-0,10	-0,10	0,14	±1,0
8000	-0,60	-0,60	-0,10	0,14	+1,5/-2,5
16000	-5,40	-5,50	-0,10	0,14	+2,5/-16,0



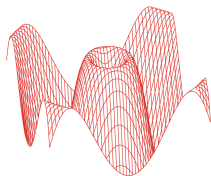
## 7. Ponderazioni di frequenza e temporali a 1 kHz

**Descrizione:** La prova consiste nella verifica delle differenze tra il livello di calibrazione ad 1 kHz con ponderazione di frequenza A e le ponderazioni di frequenza C, Z e Piatta misurate con ponderazione temporale Fast o media temporale. Inoltre, le indicazioni con la ponderazione di frequenza A devono essere registrate con lo strumento regolato per indicare il livello con ponderazione temporale F, il livello sonoro con ponderazione temporale S e il livello sonoro con media temporale, se disponibili.

**Impostazioni:** Campo di misura di riferimento, regolazione al livello di 94,0 dB ad 1 kHz con pesatura di frequenza A e temporale Fast; in successione, tutte le pesature di frequenza disponibili tra C, Z e Piatta e le ponderazioni temporali Slow e media temporale con pesatura di frequenza A.

**Lecture:** Per ciascuna ponderazione di frequenza e temporale da verificare viene letta l'indicazione dello strumento.

Ponderazione	Riferimento dB	Scarto dB	Incertezza dB	Limiti accettab. Classe 1 / dB
Fast C	94,00	0,00	0,07	±0,2
Fast Z	94,00	0,00	0,07	±0,2
Slow A	94,00	0,00	0,07	±0,1
Leq A	94,00	0,00	0,07	±0,1



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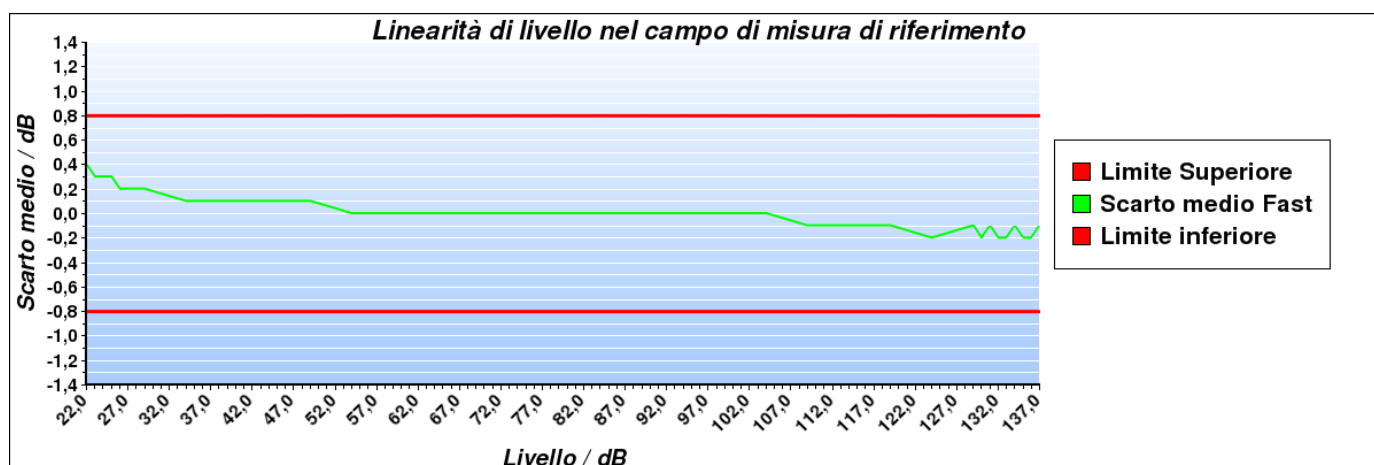
## 8. Linearità di livello nel campo di misura di riferimento

**Descrizione:** La linearità di livello viene verificata con segnali elettrici sinusoidali stazionari ad una frequenza di 8 kHz. La prova inizia con il segnale di ingresso regolato per indicare 94,0 dB e aumentando il livello del segnale di ingresso di gradini di 5 dB fino a 5 dB dal limite superiore per il campo di funzionamento lineare a 8 kHz, poi aumentando il livello di gradini di 1 dB fino alla prima indicazione di sovraccarico, non inclusa. Successivamente, sempre partendo dal punto di inizio, si diminuisce il livello del segnale di ingresso a gradini di 5 dB fino a 5 dB dal limite inferiore del campo di misura di riferimento, poi diminuendo il livello del segnale di gradini di 1 dB fino alla prima indicazione di livello insufficiente o, se non disponibile, fino al limite inferiore del campo di funzionamento lineare.

**Impostazioni:** Ponderazione temporale Fast, campo di misura di riferimento e ponderazione di frequenza A.

**Lecture:** Per ciascun livello da verificare, viene rilevata la differenza tra il livello visualizzato sullo strumento e il corrispondente livello sonoro atteso.

Livello generato dB	Incertezza dB	Scarto medio dB	Limiti accettabilità Classe 1 / dB	Livello generato dB	Incertezza dB	Scarto medio dB	Limiti accettabilità Classe 1 / dB
94,0	0,14	Riferimento	±0,8	79,0	0,14	0,00	±0,8
99,0	0,14	0,00	±0,8	74,0	0,14	0,00	±0,8
104,0	0,14	0,00	±0,8	69,0	0,14	0,00	±0,8
109,0	0,14	-0,10	±0,8	64,0	0,14	0,00	±0,8
114,0	0,14	-0,10	±0,8	59,0	0,14	0,00	±0,8
119,0	0,14	-0,10	±0,8	54,0	0,14	0,00	±0,8
124,0	0,14	-0,20	±0,8	49,0	0,14	0,10	±0,8
129,0	0,14	-0,10	±0,8	44,0	0,14	0,10	±0,8
130,0	0,14	-0,20	±0,8	39,0	0,14	0,10	±0,8
131,0	0,14	-0,10	±0,8	34,0	0,14	0,10	±0,8
132,0	0,14	-0,20	±0,8	29,0	0,14	0,20	±0,8
133,0	0,14	-0,20	±0,8	28,0	0,14	0,20	±0,8
134,0	0,14	-0,10	±0,8	27,0	0,14	0,20	±0,8
135,0	0,14	-0,20	±0,8	26,0	0,14	0,20	±0,8
136,0	0,14	-0,20	±0,8	25,0	0,14	0,30	±0,8
137,0	0,14	-0,10	±0,8	24,0	0,14	0,30	±0,8
94,0	0,14	Riferimento	±0,8	23,0	0,14	0,30	±0,8
89,0	0,14	0,00	±0,8	22,0	0,14	0,40	±0,8
84,0	0,14	0,00	±0,8				







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## 9. Risposta a treni d'onda

**Descrizione:** La risposta dello strumento a segnali di breve durata viene verificata attraverso dei treni d'onda di 4 kHz, con durate di 200 ms, 2 ms e 0,25 ms, che iniziano e finiscono sul passaggio per lo zero e sono estratti da segnali di ingresso elettrici sinusoidali di 4 kHz. Il livello di riferimento del segnale sinusoidale continuo è pari a 135,0 dB.

**Impostazioni:** Campo di misura di riferimento, ponderazione di frequenza A, ponderazioni temporali FAST e SLOW e livello di esposizione sonora (SEL) o, nel caso quest'ultimo non sia disponibile, il livello sonoro con media temporale.

**Lecture:** Per ciascuna pesatura da verificare, viene calcolata la differenza tra il livello sonoro massimo visualizzato sullo strumento e il corrispondente livello sonoro atteso. Per le misure del livello di esposizione sonora viene calcolata la differenza tra il livello di esposizione sonora letto sullo strumento e il corrispondente livello di esposizione sonora atteso.

Ponderazione di frequenza	Durata Burst ms	Livello atteso dB	Lettura media dB	Scarto medio dB	Incertezza dB	Limiti accettabilità Classe 1 / dB
Fast	200	134,00	134,00	0,00	0,17	±0,5
Slow	200	127,60	127,60	0,00	0,17	±0,5
SEL	200	128,00	128,00	0,00	0,17	±0,5
Fast	2	117,00	116,90	-0,10	0,17	+1,0/-1,5
Slow	2	108,00	108,00	0,00	0,17	+1,0/-3,0
SEL	2	108,00	108,00	0,00	0,17	+1,0/-1,5
Fast	0,25	108,00	107,80	-0,20	0,17	+1,0/-3,0
SEL	0,25	99,00	98,90	-0,10	0,17	+1,0/-3,0

## 10. Livello sonoro di picco C

**Descrizione:** Questa prova permette di verificare il funzionamento del rilevatore di picco. Vengono utilizzati tre diversi tipi di segnali: una forma d'onda a 8 kHz, una mezza forma d'onda positiva a 500 Hz e una mezza forma d'onda negativa a 500 Hz. Questi segnali di test vengono estratti rispettivamente da un segnale sinusoidale stazionario alla frequenza di 8 kHz che fornisca sullo strumento un'indicazione pari a 132,0 dB e da un segnale sinusoidale stazionario alla frequenza di 500 Hz che fornisca un'indicazione pari a 132,0 dB.

**Impostazioni:** Campo di misura meno sensibile, ponderazione di frequenza C, ponderazione temporale Fast e picco.

**Lecture:** Per ciascun tipo di segnale da verificare, viene calcolata la differenza tra il livello sonoro di picco C visualizzato sullo strumento e il corrispondente livello sonoro di picco atteso.

Tipo di segnale	Livello di riferimento dB	Livello atteso dB	Lettura media dB	Scarto medio dB	Incertezza dB	Limiti accettabilità Classe 1 / dB
1 ciclo 8 kHz	132,00	135,40	135,30	-0,10	0,19	±2,0
½ ciclo 500 Hz +	132,00	134,40	134,20	-0,20	0,19	±1,0
½ ciclo 500 Hz -	132,00	134,40	134,20	-0,20	0,19	±1,0

## 11. Indicazione di sovraccarico

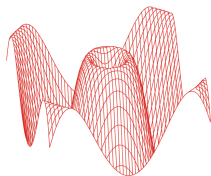
**Descrizione:** Questa prova permette di verificare il funzionamento dell'indicatore di sovraccarico. Dopo aver regolato il livello del segnale elettrico stazionario di ingresso in modo da visualizzare sullo strumento un'indicazione pari a 138,0 dB, vengono inviati segnali elettrici sinusoidali di mezzo ciclo positivo ad una frequenza di 4 kHz incrementando di volta in volta il livello fino alla prima indicazione di sovraccarico. L'operazione viene poi ripetuta con segnali di mezzo ciclo negativo.

**Impostazioni:** Campo di misura meno sensibile, ponderazione di frequenza A e media temporale.

**Lecture:** Viene calcolata la differenza tra i livelli positivo e negativo che hanno portato all'indicazione di sovraccarico sullo strumento.

Livello di riferimento dB	½ ciclo positivo dB	½ ciclo negativo dB	Differenza dB	Incertezza dB	Limiti accettabilità Classe 1 / dB
138,0	138,5	139,1	-0,6	0,17	±1,5

L'indicatore di sovraccarico è rimasto correttamente memorizzato dopo che si è prodotta una condizione di sovraccarico sullo strumento.



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## 12. Stabilità ad alti livelli

**Descrizione:** Questa prova permette di verificare la stabilità dello strumento quando opera continuamente con segnali di livello elevato. Dopo aver regolato il livello del segnale elettrico stazionario di ingresso in modo da visualizzare sullo strumento un'indicazione pari a 137,0 dB, si registra il livello visualizzato e si continua ad applicare il segnale per 5 minuti al termine dei quali viene nuovamente registrato il livello indicato.

**Impostazioni:** Campo di misura meno sensibile, ponderazione di frequenza A e ponderazione di frequenza Fast, Slow o Leq su 10 secondi.

**Letture:** Viene calcolata la differenza tra i livelli indicati dallo strumento all'inizio della prova e dopo 5 minuti di esposizione al segnale ad alto livello.

Livello di riferimento dB	Livello iniziale dB	Livello finale dB	Scarto medio dB	Incertezza dB	Limiti accettabilità Classe 1 / dB
137,0	137,0	137,0	0,0	0,07	±0,1

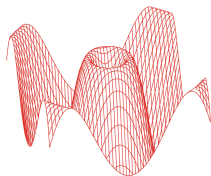
## 13. Stabilità a lungo termine

**Descrizione:** Questa prova permette di verificare la capacità dello strumento di operare continuamente con segnali di medio livello. Dopo aver regolato il livello del segnale elettrico stazionario di ingresso, in modo da visualizzare sullo strumento un'indicazione pari a 94,0 dB, si registra il livello visualizzato e si continua ad applicare il segnale per un intervallo di tempo variabile tra 25 minuti e 35 minuti al termine del quale viene nuovamente registrato il livello indicato.

**Impostazioni:** Campo di misura di riferimento, ponderazione di frequenza A e ponderazione di frequenza Fast, Slow o Leq su 10 secondi.

**Letture:** Viene calcolata la differenza tra i livelli indicati dallo strumento all'inizio e alla fine della prova.

Livello di riferimento dB	Livello iniziale dB	Livello finale dB	Scarto medio dB	Incertezza dB	Limiti accettabilità Classe 1 / dB
94,0	94,0	94,0	0,0	0,07	±0,1



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- data di emissione <i>date of issue</i>	2023-03-31
- cliente <i>customer</i>	AESSE AMBIENTE SRL 20090 - TREZZANO S/NAVIGLIO (MI)
- destinatario <i>receiver</i>	MORI MANTOVANI ASSOCIATI SRL 43123 - PARMA (PR)

Si riferisce a

*Referring to*

- oggetto <i>item</i>	Filtri 1/3 ottave
- costruttore <i>manufacturer</i>	01-dB
- modello <i>model</i>	FUSION
- matricola <i>serial number</i>	15058
- data di ricevimento oggetto <i>date of receipt of item</i>	2023-03-31
- data delle misure <i>date of measurements</i>	2023-03-31
- registro di laboratorio <i>laboratory reference</i>	Reg. 03

Il presente certificato di taratura è emesso in base all'accreditamento LAT N° 068 rilasciato in accordo ai decreti attuativi della legge n. 273/1991 che ha istituito il Sistema Nazionale di Taratura (SNT). ACCREDIA attesta le capacità di misura e di taratura, le competenze metrologiche del Centro e la riferibilità delle tarature eseguite ai campioni nazionali e internazionali delle unità di misura del Sistema Internazionale delle Unità (SI).

Questo certificato non può essere riprodotto in modo parziale, salvo espressa autorizzazione scritta da parte del Centro.

*This certificate of calibration is issued in compliance with the accreditation LAT N° 068 granted according to decrees connected with Italian law No. 273/1991 which has established the National Calibration System. ACCREDIA attests the calibration and measurement capability, the metrological competence of the Centre and the traceability of calibration results to the national and international standards of the International System of Units (SI).*

*This certificate may not be partially reproduced, except with the prior written permission of the issuing Centre.*

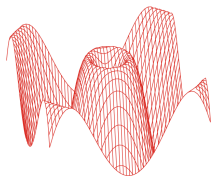
I risultati di misura riportati nel presente Certificato sono stati ottenuti applicando le procedure di taratura citate alla pagina seguente, dove sono specificati anche i campioni o gli strumenti che garantiscono la catena di riferibilità del Centro e i rispettivi certificati di taratura in corso di validità. Essi si riferiscono esclusivamente all'oggetto in taratura e sono validi nel momento e nelle condizioni di taratura, salvo diversamente specificato.

*The measurement results reported in this Certificate were obtained following the calibration procedures given in the following page, where the reference standards or instruments are indicated which guarantee the traceability chain of the laboratory, and the related calibration certificates in the course of validity are indicated as well. They relate only to the calibrated item and they are valid for the time and conditions of calibration, unless otherwise specified.*

Le incertezze di misura dichiarate in questo documento sono state determinate conformemente alla Guida ISO/IEC 98 e al documento EA-4/02. Solitamente sono espresse come incertezza estesa ottenuta moltiplicando l'incertezza tipo per il fattore di copertura  $k$  corrispondente ad un livello di fiducia di circa il 95 %. Normalmente tale fattore  $k$  vale 2.

*The measurement uncertainties stated in this document have been determined according to the ISO/IEC Guide 98 and to EA-4/02. Usually, they have been estimated as expanded uncertainty obtained multiplying the standard uncertainty by the coverage factor  $k$  corresponding to a confidence level of about 95%. Normally, this factor  $k$  is 2.*

Direzione Tecnica  
(Approving Officer)



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**Di seguito vengono riportate le seguenti informazioni:**

- la descrizione dell'oggetto in taratura (se necessaria);
- l'identificazione delle procedure in base alle quali sono state eseguite le tarature;
- gli strumenti/campioni che garantiscono la riferibilità del Centro;
- gli estremi dei certificati di taratura di tali campioni e l'Ente che li ha emessi;
- il luogo di taratura (se effettuata fuori dal Laboratorio);
- le condizioni ambientali e di taratura;
- i risultati delle tarature e la loro incertezza estesa.

**In the following, information is reported about:**

- description of the item to be calibrated (if necessary);
- technical procedures used for calibration performed;
- instruments or measurement standards which guarantee the traceability chain of the Centre;
- relevant calibration certificates of those standards with the issuing Body;
- site of calibration (if different from Laboratory);
- calibration and environmental conditions;
- calibration results and their expanded uncertainty.

**Strumenti sottoposti a verifica**  
*Instrumentation under test*

Strumento	Costruttore	Modello	Matricola
Filtri 1/3 ottave	01-dB	FUSION	15058

**Procedure tecniche, norme e campioni di riferimento**  
*Technical procedures, Standards and Traceability*

I risultati di misura riportati nel presente Certificato sono stati ottenuti applicando la procedura di taratura N. PTL 09 rev. 4.7.  
Le verifiche effettuate sull'oggetto della taratura sono in accordo con il metodo interno di taratura basato sulla norma CEI EN 61260:1997.  
Le tolleranze riportate sono relative alla classe di appartenenza dello strumento come definito nella norma CEI EN 61260:1997.  
Nella tabella sottostante vengono riportati gli estremi dei campioni di riferimento dai quali ha inizio la catena della riferibilità del Centro.

Strumento	Matricola	Certificato	Data taratura	Data scadenza
Stazione meteo Ahlborn Almemo 2590+FHAD46-C2L00	H17121184+17110098	1011010_2023_ACCR_MC	2023-01-18	2024-01-18
Multimetro Hewlett Packard 3458A	2823A24857	LAT 019 68708	2022-05-31	2023-05-31
Barometro digitale DRUCK DPI 150	3268333	LAT 128P-999/22	2022-11-21	2023-11-21

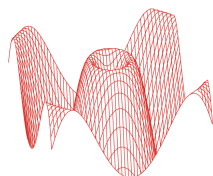
**Condizioni ambientali durante le misure**  
*Environmental parameters during measurements*

Parametro	Di riferimento	Intervallo di validità	All'inizio delle misure	Alla fine delle misure
Temperatura / °C	23,0	da 20 a 26	25,1	25,3
Umidità / %	50,0	da 30 a 70	48,7	48,1
Pressione / hPa	1013,3	da 800 a 1050	1000,1	999,9

Nella determinazione dell'incertezza non è stata presa in considerazione la stabilità nel tempo dell'oggetto in taratura. Gli elevati valori di incertezza in alcune prove sono determinati dalle caratteristiche intrinseche dello strumento in prova.

Sullo Strumento in esame sono state eseguite misure sia per via elettrica che per via acustica. Le misure per via elettrica sono state effettuate sostituendo alla capsula microfonica un adattatore capacitivo con impedenza elettrica equivalente a quella del microfono.

Tutti i dati riportati nel presente Certificato sono espressi in Decibel (dB). I valori di pressione sonora assoluta sono riferiti a 20 uPa.



**CERTIFICATO DI TARATURA LAT 068 50684-A**  
*Certificate of Calibration LAT 068 50684-A*

**Capacità metrologiche del Centro**  
**Metrological capabilities of the Laboratory**

Nella tabella vengono riportate le capacità metrologiche del Centro per le grandezze acustiche e le relative incertezze ad esse associate.

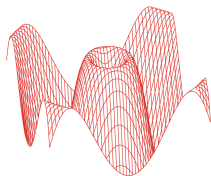
Grandezza	Strumento in taratura	Campo di misura	Condizioni di misura	Incertezza (*)
Livello di pressione acustica	Pistonofoni IEC 60942:2003 Livello di pressione acustica Frequenza	da 114 dB a 140 dB da 160 Hz a 315 Hz	da 160 Hz a 315 Hz da 114 dB a 140 dB	0,10 dB 0,04 %
	Pistonofoni IEC 60942:2017 Livello di pressione acustica Frequenza	da 94 dB a 140 dB da 160 Hz a 1,25 kHz	da 160 Hz a 1,25 kHz da 94 dB a 140 dB	0,10 dB 0,04 %
	Calibratori acustici IEC 60942:2003 Livello di pressione acustica Frequenza	da 94 dB a 114 dB da 160 Hz a 1,25 kHz	da 160 Hz a 1,25 kHz da 94 dB a 114 dB	0,10 dB 0,05 %
	Calibratori acustici IEC 60942:2017 Livello di pressione acustica Frequenza	da 90 dB a 125 dB da 160 Hz a 1,25 kHz	da 160 Hz a 1,25 kHz da 94 dB a 140 dB	0,10 dB 0,04 %
	Calibratori multifrequenza <sup>(1)</sup> Livello di pressione acustica Frequenza	da 94 dB a 140 dB da 31,5 Hz a 16 kHz	da 31,5 Hz a 16 kHz da 94 dB a 140 dB	da 0,10 dB a 0,49 dB 0,04 %
	Ponderazione "inversa A" Correzioni pressione/campo libero microfoni	da 94 dB a 114 dB da 94 dB a 114 dB	da 31,5 Hz a 16 kHz da 31,5 Hz a 16 kHz	0,15 dB 0,12 dB
	Fonometri <sup>(2)</sup>	da 20 dB a 155 dB	da 31,5 Hz a 16 kHz	da 0,14 dB a 0,84 dB
	Fonometri <sup>(3)</sup>	da 20 dB a 150 dB	da 63 Hz a 16 kHz	da 0,07 dB a 0,45 dB
	Filtri a bande di terzi di ottava IEC 61260:1995 Filtri a bande di ottava IEC 61260:1995	da 20 dB a 150 dB da 20 dB a 150 dB	da 20 Hz a 20 kHz da 31,5 Hz a 8 kHz	da 0,1 dB a 1,0 dB da 0,1 dB a 1,0 dB
	Filtri a bande di terzi di ottava IEC 61260-3:2016 Filtri a bande di ottava IEC 61260-3:2016	da 20 dB a 150 dB da 20 dB a 150 dB	da 20 Hz a 20 kHz da 31,5 Hz a 16 kHz	da 0,19 dB a 0,50 dB da 0,19 dB a 0,50 dB
Sensibilità alla pressione acustica	Microfoni LS1 e LS2	124 dB	250 Hz	0,09 dB
	Microfoni LS2	94 dB	da 31,5 Hz a 16 kHz	da 0,11 dB a 0,22 dB
	Microfoni WS2	94 dB	da 31,5 Hz a 16 kHz	da 0,11 dB a 0,22 dB
	Microfoni WS2 (risposta di frequenza corretta per campo libero)	94 dB	da 31,5 Hz a 16 kHz	da 0,12 dB a 0,83 dB

(\*) L'incertezza di misura è dichiarata come incertezza estesa corrispondente al livello di fiducia al 95% ed è ottenuta moltiplicando l'incertezza tipo per il fattore di copertura k specificato.

<sup>(1)</sup> Calibratori conformi sia alla IEC 60942:2003 che alla IEC 60942:2017.

<sup>(2)</sup> Fonometri conformi solamente alle norme IEC 60651:1979 e IEC 60804:2000.

<sup>(3)</sup> Fonometri conformi alla norma IEC 61672-1:2002 e alla IEC 61672-1:2013.



**L.C.E. S.r.l. a Socio Unico**  
Via dei Platani, 7/9 Opera (MI)  
T. 02 57602858 - [www.lce.it](http://www.lce.it) - [info@lce.it](mailto:info@lce.it)

Centro di Taratura LAT N° 068  
Calibration Centre  
Laboratorio Accreditato di Taratura  
Accredited Calibration Laboratory



LAT N° 068

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CERTIFICATO DI TARATURA LAT 068 50684-A  
Certificate of Calibration LAT 068 50684-A

## 1. Ispezione preliminare

**Descrizione:** Nella tabella sottostante vengono riportati i risultati dei controlli preliminari effettuati sulla strumentazione in taratura.

Controllo	Esito
Ispezione visiva iniziale	OK
Integrità meccanica	OK
Integrità funzionale	OK
Equilibrio termico	OK
Alimentazione	OK
Luogo di taratura	SEDE

## 2. Modalità e condizioni di misura

**Descrizione:** Vengono qui riportate le impostazioni e le caratteristiche dello strumento rilevanti ai fini della Taratura.

Impostazioni	
Frequenza di campionamento	51,20 kHz
Sistema di calcolo	base due
Attenuazione di riferimento	0,00 dB

## 3. Attenuazione relativa

**Descrizione:** La verifica dell'attenuazione relativa viene effettuata ad 1 dB dal limite superiore del campo di funzionamento lineare nella gamma di livello di riferimento.

Frequenza normalizzata f/fm	Attenuazioni rilevate dB					Limiti Classe 1 dB	Incertezza dB
	Filtro a 20 Hz	Filtro a 80 Hz	Filtro a 250 Hz	Filtro a 2500 Hz	Filtro a 20000 Hz		
0,18400	>90,00	>90,00	>90,00	>90,00	>80,00	+70/+∞	1,00
0,32578	>80,00	>80,00	>80,00	>80,00	68,10	+61/+∞	0,80
0,52996	60,70	59,10	60,30	59,00	46,70	+42/+∞	0,30
0,77181	28,10	27,70	28,40	27,70	20,50	+17,5/+∞	0,20
0,89090	3,10	3,40	3,40	3,20	3,10	+2,0/+5,0	0,20
0,91932	0,30	0,40	0,40	0,40	0,70	-0,3/+1,3	0,12
0,94702	-0,00	-0,00	-0,00	-0,00	-0,00	-0,3/+0,6	0,12
0,97394	-0,00	-0,00	-0,00	-0,00	-0,00	-0,3/+0,4	0,12
1,00000	0,10	-0,00	-0,00	-0,00	-0,10	-0,3/+0,3	0,12
1,02676	0,10	-0,00	-0,00	-0,00	-0,20	-0,3/+0,4	0,12
1,05594	0,10	-0,00	-0,00	-0,00	-0,10	-0,3/+0,6	0,12
1,08776	0,50	0,40	0,40	0,40	-0,10	-0,3/+1,3	0,12
1,12246	3,10	4,00	3,80	3,90	2,90	+2,0/+5,0	0,20
1,29565	29,10	32,70	31,40	32,70	65,20	+17,5/+∞	0,20
1,88695	64,50	>80,00	71,50	>80,00	>80,00	+42,0/+∞	0,30
3,06955	>90,00	>90,00	>90,00	>90,00	>80,00	+61/+∞	0,80
5,43474	>90,00	>90,00	>90,00	>90,00	>80,00	+70/+∞	1,00





**CERTIFICATO DI TARATURA LAT 068 50684-A**  
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## 4. Campo di funzionamento lineare

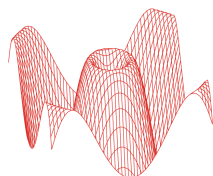
**Descrizione:** La linearità della risposta del filtro viene verificata nella gamma di livello di riferimento, partendo dal limite superiore, per 50 dB di dinamica, ad intervalli di 5 dB tranne a 5 dB dagli estremi dove la verifica viene effettuata ad intervalli di 1 dB.

Filtro a 20 Hz		Filtro a 250 Hz		Filtro a 20000 Hz		Limiti Classe 1 dB	Incertezza dB
Livello Nominale dB	Scarto dB	Livello Nominale dB	Scarto dB	Livello Nominale dB	Scarto dB		
138,0	-0,10	138,0	-0,10	138,0	-0,10	±0,4	0,14
137,0	-0,10	137,0	-0,10	137,0	-0,20	±0,4	0,14
136,0	-0,10	136,0	-0,20	136,0	-0,20	±0,4	0,14
135,0	-0,10	135,0	-0,10	135,0	-0,10	±0,4	0,14
134,0	-0,10	134,0	-0,20	134,0	-0,20	±0,4	0,14
133,0	-0,10	133,0	-0,20	133,0	-0,20	±0,4	0,14
128,0	-0,10	128,0	-0,20	128,0	-0,20	±0,4	0,14
123,0	-0,10	123,0	-0,10	123,0	-0,10	±0,4	0,14
118,0	-0,10	118,0	-0,20	118,0	-0,20	±0,4	0,14
113,0	-0,10	113,0	-0,20	113,0	-0,20	±0,4	0,14
108,0	-0,10	108,0	-0,10	108,0	-0,10	±0,4	0,14
103,0	-0,10	103,0	0,00	103,0	0,00	±0,4	0,14
98,0	0,00	98,0	0,00	98,0	0,00	±0,4	0,14
93,0	0,00	93,0	0,00	93,0	0,00	±0,4	0,14
92,0	0,00	92,0	0,00	92,0	0,00	±0,4	0,14
91,0	0,00	91,0	0,00	91,0	0,00	±0,4	0,14
90,0	0,00	90,0	0,00	90,0	0,00	±0,4	0,14
89,0	0,00	89,0	0,00	89,0	0,00	±0,4	0,14
88,0	0,00	88,0	0,00	88,0	0,00	±0,4	0,14

## 5. Filtri anti-ribaltamento

**Descrizione:** La verifica viene effettuata ad un livello pari al limite superiore del campo di funzionamento lineare della gamma di riferimento. Per ciascun filtro verificato viene inviato un segnale sinusoidale stazionario di frequenza pari alla frequenza di campionamento dello strumento meno la frequenza centrale nominale del filtro.

Frequenza nominale filtro Hz	Frequenza esatta filtro Hz	Frequenza generata Hz	Attenuazione rilevata dB	Attenuazione minima Classe 1 dB	Incertezza dB
20	19,69	51180,31	>90,00	70,0	1,00
250	250,00	50950,00	>90,00	70,0	1,00
2500	2519,84	48680,16	>90,00	70,0	1,00



CERTIFICATO DI TARATURA LAT 068 50684-A  
Certificate of Calibration LAT 068 50684-A

## 6. Somma dei segnali d'uscita

Frequenza nominale filtro Hz	Frequenza esatta filtro Hz	Frequenza generata Hz	Scarto dB	Limiti Classe 1 dB	Incertezza dB
80	78,75	78,75	0,01	+1,0/-2,0	0,10
80	78,75	70,15	-0,63	+1,0/-2,0	0,10
80	78,75	88,39	-0,68	+1,0/-2,0	0,10
250	250,00	250,00	0,01	+1,0/-2,0	0,10
250	250,00	222,73	-0,44	+1,0/-2,0	0,10
250	250,00	280,62	-0,53	+1,0/-2,0	0,10
2500	2519,84	2519,84	0,11	+1,0/-2,0	0,10
2500	2519,84	2244,93	-0,48	+1,0/-2,0	0,10
2500	2519,84	2828,42	-0,58	+1,0/-2,0	0,10

## 7. Funzionamento in tempo reale

**Descrizione:** I campi di frequenze nei quali i filtri devono funzionare in tempo reale vengono verificati tramite questa prova che utilizza la modulazione in frequenza del segnale fornito.

Frequenza nominale filtro Hz	Frequenza esatta filtro Hz	Scarto dB	Limiti Classe 1 dB	Incertezza dB
20	19,69	0,00	±0,3	0,10
25	24,80	-0,10	±0,3	0,10
31,5	31,25	-0,20	±0,3	0,10
40	39,37	-0,20	±0,3	0,10
50	49,61	-0,10	±0,3	0,10
63	62,50	-0,20	±0,3	0,10
80	78,75	-0,10	±0,3	0,10
100	99,21	-0,10	±0,3	0,10
125	125,00	-0,10	±0,3	0,10
160	157,49	-0,10	±0,3	0,10
200	198,43	-0,10	±0,3	0,10
250	250,00	-0,10	±0,3	0,10
315	314,98	-0,10	±0,3	0,10
400	396,85	-0,10	±0,3	0,10
500	500,00	-0,10	±0,3	0,10
630	629,96	-0,10	±0,3	0,10
800	793,70	0,00	±0,3	0,10
1000	1000,00	-0,10	±0,3	0,10
1250	1259,92	-0,10	±0,3	0,10
1600	1587,40	0,00	±0,3	0,10
2000	2000,00	-0,10	±0,3	0,10
2500	2519,84	-0,10	±0,3	0,10
3150	3174,80	0,00	±0,3	0,10
4000	4000,00	-0,10	±0,3	0,10
5000	5039,68	-0,10	±0,3	0,10
6300	6349,60	-0,10	±0,3	0,10
8000	8000,00	-0,10	±0,3	0,10
10000	10079,37	-0,20	±0,3	0,10
12500	12699,21	-0,20	±0,3	0,10
16000	16000,00	0,00	±0,3	0,10
20000	20158,74	0,20	±0,3	0,10

**CERTIFICATO DI TARATURA LAT 146 15781**  
*Certificate of Calibration*

- data di emissione <i>date of issue</i>	<b>2023/02/23</b>
- cliente <i>customer</i>	<b>Trescal Tec S.r.l.</b> Via Zamboni, 60 - 41011 Campogalliano (MO)
- destinatario <i>receiver</i>	<b>Mori Mantovani Associati S.r.l.</b> Via Strasburgo, 18/A - 43123 Parma (PR)
- richiesta <i>application</i>	<b>T130/23</b>
- in data <i>date</i>	<b>2023/02/17</b>
 <u>Si riferisce a</u> <i>referring to</i>	
- oggetto <i>item</i>	<b>Calibratore</b>
- costruttore <i>manufacturer</i>	<b>BRUEL &amp; KJAER</b>
- modello <i>model</i>	<b>4231</b>
- matricola <i>serial number</i>	<b>2637294</b>
- data di ricevimento oggetto <i>date of receipt of item</i>	<b>2023/02/16</b>
- data delle misure <i>date of measurements</i>	<b>2023/02/23</b>
- registro di laboratorio <i>laboratory reference</i>	<b>23-0269-RLA</b>

Il presente certificato di taratura è emesso in base all'accreditamento LAT N° 146 rilasciato in accordo ai decreti attuativi della legge n. 273/1991 che ha istituito il Sistema Nazionale di Taratura (SNT).

ACCREDIA attesta le capacità di misura e di taratura, le competenze metrologiche del Centro e la riferibilità delle tarature eseguite ai campioni nazionali e internazionali delle unità di misura del Sistema Internazionale delle Unità (SI).

Questo certificato non può essere riprodotto in modo parziale, salvo espressa autorizzazione scritta da parte del Centro.

*This certificate of calibration is issued in compliance with the accreditation LAT N° 146 granted according to decrees connected with Italian law No. 273/1991 which has established the National Calibration System.*

*ACCREDIA attests the calibration and measurement capability, the metrological competence of the Centre and the traceability of calibration results to the national and international standards of the International System of Units (SI).*

*This certificate may not be partially reproduced, except with the prior written permission of the issuing Centre.*

I risultati di misura riportati nel presente Certificato sono stati ottenuti applicando le procedure citate alla pagina seguente, dove sono specificati anche i campioni di prima linea da cui inizia la catena di riferibilità del Centro e i rispettivi certificati di taratura, in corso di validità. Essi si riferiscono esclusivamente all'oggetto in taratura e sono validi nel momento e nelle condizioni di taratura, salvo diversamente specificato.

*The measurement results reported in this Certificate were obtained following the procedures given in the following page, where the reference standards are indicated as well, from which starts the traceability chain of the laboratory, and the related calibration certificates in their course of validity. They relate only to the calibrated item and they are valid for the time and conditions of calibration, unless otherwise specified.*

Le incertezze di misura dichiarate in questo documento sono state determinate conformemente al documento EA-4/02 e sono espresse come incertezza estesa ottenuta moltiplicando l'incertezza tipo per il fattore di copertura  $k$  corrispondente ad livello di fiducia di circa il 95%. Normalmente tale fattore  $k$  vale 2.

*The measurement uncertainties stated in this document have been determined according to EA-4/02. They were estimated as expanded uncertainty obtained multiplying the standard uncertainty by the coverage factor  $k$  corresponding to a confidence level of about 95%. Normally, this factor  $k$  is 2.*

**Il Responsabile del Centro**  
**Head of the Centre**

Firmato  
digitalmente da

**TIZIANO  
MUCHETTI**

T = Ingegnere  
Data e ora della firma:  
23/02/2023 17:23:14

**CERTIFICATO DI TARATURA LAT 146 15781**  
*Certificate of Calibration*
**DESCRIZIONE DELL'OGGETTO IN TARATURA**

Calibratore BRUEL &amp; KJAER tipo 4231 matricola n° 2637294

**PROCEDURA DI TARATURA**

 I risultati di misura riportati nel presente Certificato sono stati ottenuti applicando la procedura:  
 PR003 rev. 04 del Manuale Operativo del laboratorio.

**RIFERIMENTI NORMATIVI**

Il calibratore acustico è stato verificato come specificato nell'Allegato B della norma IEC 60942:2003.

**CAMPIONI DI LABORATORIO**

Strumento	Marca e Modello	Matricola n°	Data taratura	Certificato n°	Ente
Microfono	B&K 4180	2412885	2022-03-23	22-0219-01	I.N.Ri.M.
Multimetro	Keithley 2000	0787157	2022-04-04	046 371390	ARO
Barometro	Druck DPI 141	733/99-09	2022-03-22	034T 0244P22	Cesare Galdabini
Termoigrometro	Testo 175H1	44632241	2022-03-18	123 22-SU-0371 123 22-SU-0372	CAMAR Elettronica

**CONDIZIONI AMBIENTALI**

Parametro	Di riferimento	Inizio misura	Fine misura
Temperatura / °C	23,0	20,7	20,7
Umidità relativa / %	50,0	55,9	55,9
Pressione statica/ hPa	1013,25	1011,23	1011,23

**TABELLA INCERTEZZE DI MISURA**

Prova		U
Frequenza		0,04 %
Livello di pressione acustica (pistonofoni)	250 Hz	0,10 dB
Livello di pressione acustica (calibratori)	250 Hz e 1 kHz	0,15 dB
Livello di pressione acustica (calibratori multifrequenza)	da 31,5 Hz a 63 Hz	0,20 dB
	125 Hz	0,18 dB
	da 250 a 1 kHz	0,15 dB
	da 2 kHz a 4 kHz	0,18 dB
	8 kHz	0,26 dB
	12,5 kHz	0,30 dB
	16 kHz	0,34 dB
Distorsione totale		0,26 %
Curva di ponderazione "A" inversa (calibratori multifrequenza)		0,10 dB
Correzioni microfoni (calibratori multifrequenza)		0,12 dB

**CERTIFICATO DI TARATURA LAT 146 15781**  
**Certificate of Calibration**
**RISULTATI:**

<b>MISURA DELLA FREQUENZA</b>						
Freq. Esatta	Lp Specificato	Freq. Misurata	Dev. Freq.	U	Dev. + U	Toll. Classe 1
/Hz	/dB	/Hz	/%	/%	/%	/%
1000,00	94,00	999,97	0,00	0,04	0,04	1,00

<b>MISURA DEL LIVELLO DI PRESSIONE ACUSTICA</b>						
Freq. Esatta	Lp Specificato	Lp Misurato	Dev. Lp	U	Dev. + U	Toll. Classe 1
/Hz	/dB	/dB	/dB	/dB	/dB	/dB
1000,00	94,00	94,05	0,05	0,15	0,20	0,40
1000,00	114,00	114,07	0,07	0,15	0,22	0,40

<b>MISURA DELLA DISTORSIONE TOTALE</b>					
Freq. Esatta	Lp Specificato	DT	U	DT + U	Toll. Classe 1
/Hz	/dB	/%	/%	/%	/%
1000,00	94,00	0,54	0,26	0,80	3,00
1000,00	114,00	0,23	0,26	0,49	3,00

**NOTE**

**Frequenza:** il valore assoluto della differenza, espresso in percentuale, tra la frequenza del suono generato dallo strumento e la frequenza specificata, aumentato dall'incertezza estesa della misura non deve superare i limiti indicati in tabella.

**Livello di pressione acustica:** il valore assoluto della differenza, espresso in dB, tra il livello di pressione acustica medio generato dallo strumento e il livello di pressione specificato, aumentato dall'incertezza estesa della misura non deve superare i limiti indicati in tabella.

**Distorsione totale:** il valore massimo della distorsione generata dallo strumento, espresso in percentuale, aumentato dall'incertezza estesa della misura non deve superare i limiti indicati in tabella.

**DICHIARAZIONE di CONFORMITA'**

Il calibratore acustico sottoposto alle prove ha superato con esito positivo le prove periodiche della classe 1 dell'Allegato B della IEC 60942:2003, per le condizioni ambientali nelle quali esse sono state eseguite. Dato che è disponibile una dichiarazione ufficiale di un organismo responsabile dell'approvazione dei risultati delle prove di valutazione del modello, per dimostrare che detto modello di calibratore acustico è risultato completamente conforme alle prescrizioni per la valutazione dei modelli descritte nell'Allegato A della IEC 60942:2003, il calibratore acustico è conforme alle prescrizioni della classe 1 della IEC 60942:2003.