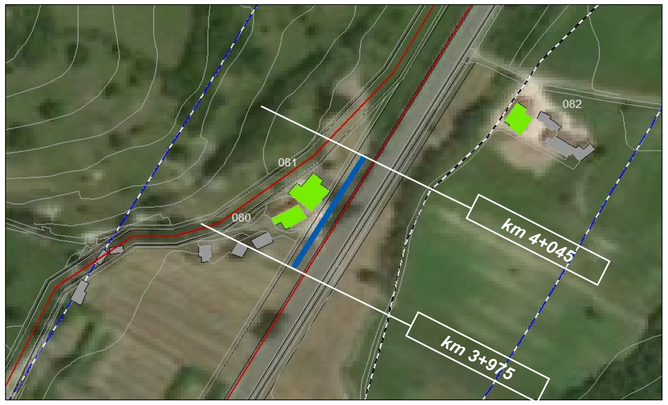
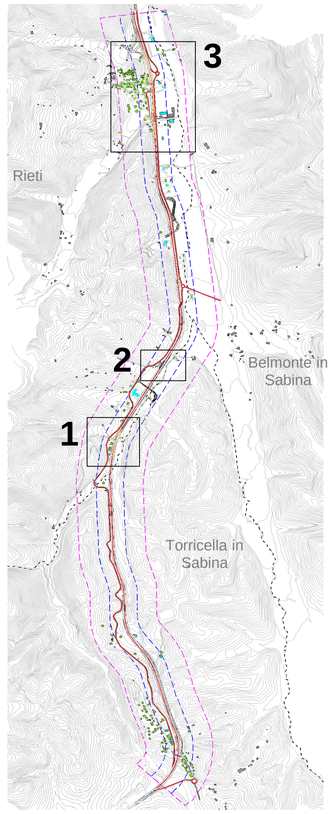
## 1 - Pavimentazione fonoassorbene area centro-sud

## 2 - Barriera fonoassorbene area centro-sud

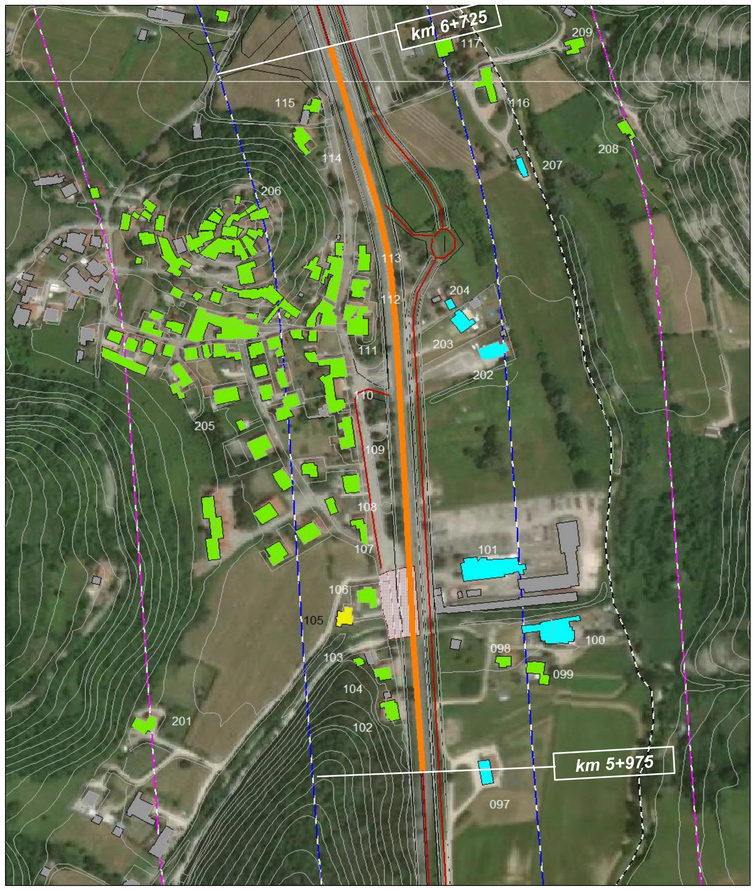



Legenda

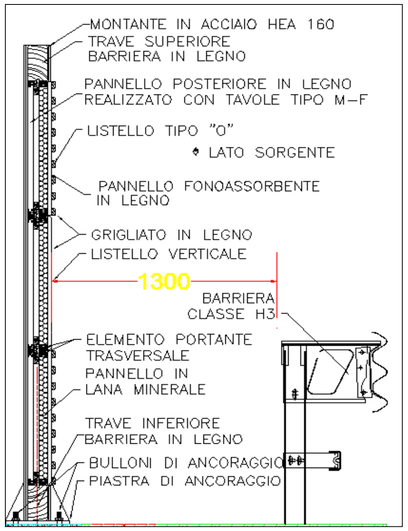
- Edifici residenziali/misti
- Edifici terziari/produttivi
- Luoghi di culto/cimitero
- Fabbricati minori o al di fuori delle fasce di pertinenza
- Strada CNOSSOS-EU
- Strada CNOSSOS-EU con pav fonoassorbente in progetto
- Barriera in progetto
- Elemento ponte
- Fascia A (100m) DPR 142/2004
- Fascia B (250m) DPR 142/2004
- Confini comunali
- Curve livello




## 3 - Pavimentazione fonoassorbene area nord "San Giovanni Reatino"




## TIPOLOGICO BARRIERA FONOASSORBENTE




## TIPOLOGIA ASFALTO FONOASSORBENTE

(Appendix 10: Guide for Mapping Existing National Road Methods to the CNOSSOS-EU Road Source Method)

| Category | Name | Description | Vehicle category in EC<br>Whole Vehicle Type Approval | NORD 96 SU Vienna method | CRTN 1988 (UK) | RLS90 2006 (Germany) | NMPB 2008 (France) | RMR | SMR II 2011 (Netherlands) | RVS 03.01.11 2006 (Austria) | Nord2000 2000 (Nordic) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Light motor vehicles | Passenger cars, delivery vans ≤ 3.5 tons, SUVs, MPVs including trailers and caravans | M1 and N1 | Light vehicles | Light vehicles | Light vehicles | Light vehicles | Light Vehicles (CatvLV) | Cars (light vehicles) (m=1) | Cat 1a.1b.1c | Cat 1a.1b.1c |
| 2 | Medium heavy vehicles | Medium heavy vehicles, delivery vans > 3.5 tons, buses, touring cars, etc. with two axles and twin tyre mounting on rear axle | M2, M3 and N2, N3 | Heavy vehicles (50%) | Heavy vehicles (50%) | Heavy vehicles (50%) | Heavy vehicles (50%) | Medium-duty vehicles (CatvMV) | Buses, commercial vehicles without trailer and motorcycles (medium vehicles) (m = 2) | Cat 2a.2b.2c.2d.2e | Cat 2a.2b.2c.2d.2e |
| 3 | Heavy vehicles | Heavy duty vehicles, touring cars, buses, with three or more axles | M2 and N2 with trailer, M3 and N3 | Heavy vehicles (50%) | Heavy vehicles (50%) | Heavy vehicles (50%) | Heavy vehicles (50%) | Heavy vehicles (CatvZV) | Trailer and semitrailer trucks (heavy vehicles) (m = 4) | Cat 3a.3b.3c.3d.3e.3f. 4a. 4b | Cat 3a.3b.3c.3d.3e.3f. 4a. 4b |
| 4 | Powered two-wheelers | 4a mopeds, tricycles or quads ≤ 50 cc | L1, L2, L6 | | | | | Mopeds | | | Cat 5a |
| | | 4b motorcycles, tricycles or quads > 50 cc | L3, L4, L5, L7 | | | | | Motorcycles | | | Cat 5b |
| 5 | Open category | To be defined according to future needs | N/A | | | | | Trams on ballast & Trams (asphalt/ concrete | Low noise versions of medium vehicles (m=2) & Low noise versions of heavy vehicles (m=3) | | |
| | **Road surface correction for light vehicles** | **Description of the road surface type** | | | | | | | | | |
| 0 | Reference | Dence asphalt/ concrete 0/11 - 0/16. Stone mastiek asphalt 0/11 | | | | | | DCL/11. dac 0/14<br>SMA 0/11. | | DAC 11 Asphalt | |
| NL01 | 1-layer ZOAB | porous asphalt | | | | | | 1-layer ZOAB | Drainage asphalt (-2 to -6) | PAC 8 | |
| NL02 | 2-layer ZOAB | dual-layer porous asphalt | | | | Porous asphalt >15% pores type 0/11 (-4) | | 2-layer ZOAB | | PAC 11 | |
| NL03 | 2-layer ZOAB (fine) | dual-layer porous asphalt with fine top layer | | | | Porous asphalt >15% pores type 0/8 (-6) | | 2-layer ZOAB (fine) | | PAC 16 | |
| NL04 | SMA-0/5 | Stone mastiek asphalt with stones of maximum 5 mm | | | | | | SMA-0/5 | | | |
| NL05 | SMA-0/8 | Stone mastiek asphalt with stones of maximum 8 mm | | Smooth asphalt (SMB) | Impervious macadam | Non grooved asphalts, concrete asphalt (0) | R2 | SMA-0/8 | Asphaltic concrete (0) | | |
| NL06 | Brushed concrete | Brushed concrete | | | | | | Brushed concrete | | CCB lo | |
| NL07 | Optimized brushed down concrete | Optimized brushed concrete | | | | Concrete with metal broom treatment (+1) | | Optimized brushed down concrete | | | |
| NL08 | Fine broomed concrete | Fine broomed concrete surface | | Cement concrete and corrugated asphalt (+2) | Concrete | Concrete with grooved asphalt (+2) | R3 | Fine broomed concrete | Concrete or grooved asphalt (+1 to +2) | | |
| NL09 | Surface treatment | Road surface with extra treatment on the surface | | | | | | Surface treatment | | CCB tr | |
| NL10 | Hard elements in herring-bone | Hard clinker elements in herring-bone | | Smooth texture paving stones (+3) | | Cobblestones with rough texture (+6) | | Hard elements in herring-bone | Granite block pavement (+5 to +8) | PS even | |
| NL11 | Hard elements not in herring-bone | Hard clinker elements not in herring-bone | | Rough texture paving stones (+6) | | | | Hard elements not in herring-bone | | PS uneven | |
| NL12 | Quiet hard elements | Silent elements (clinker stones) | | | | Cobblestones with smooth texture (+3) | | Quiet hard elements | | | |
| NL13 | Thin layer A | Thin layer low noise asphalt Type A | | Porous surface (-1 to -3 dependent upon speed) | Pervious macadam | Concrete with burlap cloth (smooth), (-2) & Asphalt concrete without grit (-2) | | Thin layer A | | | |
| NL14 | Thin layer B | Thin layer low noise asphalt Type B | | | | | R1 | Thin layer B | | | |

| Interventi di mitigazione | | | | | |
|---|---|---|---|---|---|
| | | Inizio* | Fine* | Lunghezza | Altezza |
| 1 | **Pavimentazione fonoassorbente** | km 3+150 | km 3+400 | 250 m | - |
| 2 | | km 5+975 | Km 6+725 | 750 m | - |
| 3 | **Barriere previste** | km 3+975 | km 4+045 | 70 m | 4 m |

**progressive km espresse a partire da inizio intervento*

anas

*Direzione Progettazione e Realizzazione Lavori*

STRADA STATALE 4 "VIA SALARIA"

Adeguamento della piattaforma stradale e messa in sicurezza dal km 64+000 al km 70+800

PROGETTO DEFINITIVO — COD. RM 364

PROGETTAZIONE: R.T.I. PROGIN S.p.A. (capogruppo mandataria)
CREW Cremonesi Workshop S.r.l. - TECNOSISTEM S.p.A.
ART Risorse Ambiente Territorio S.r.l. - ECOPLAME S.r.l.

RESPONSABILE INTEGRAZIONE PRESTAZIONI SPECIALISTICHE:
Dott. Ing. Antonio GRIMALDI (Progin S.p.A.)
PROGETTISTA FIRMATARIO:
Dott. Ing. Lorenzo INFANTE (Progin S.p.A.)
RESPONSABILE STUDIO IMPATTO AMBIENTALE:
Dott. Arch. Salvatore SCOPPETTA (Progin S.p.A.)

CAPOGRUPPO MANDATARIA:

INFANTE LORENZO
26.11.2021
14:58:27
GMT+01:00

Direttore Tecnico:
Dott. Ing. Lorenzo INFANTE

MADANTI:

Direttore Tecnico:
Dott. Arch. Claudio TURRINI

Direttore Tecnico:
Dott. Ing. Andrea AVETA

Direttore Tecnico:
Dott. Ing. Ivo FRESIA

Direttore Tecnico:
Dott. Arch. Pasquale PISANO

IL GEOLOGO:
Dott. Geol. Giovanni CARRA (ART Ambiente Risorse e Territorio S.r.l.)

IL COORDINATORE PER LA SICUREZZA IN FASE DI PROGETTAZIONE:

VISTO: IL RESPONSABILE DEL PROCEDIMENTO:
Dott. Ing. Achille DEVITOFRANCESCHI

PROTOCOLLO | DATA

STUDIO DI IMPATTO AMBIENTALE
RUMORE
LOCALIZZAZIONE INTERVENTI DI MITIGAZIONE
E TIPOLOGICO BARRIERA FONOASSORBENTE

| CODICE PROGETTO | | REVISIONE | SCALA |
|---|---|---|---|
| D\|P\| \|R\|M\| \|3\|6\|4\| \|D\|2\|0 | CODICE ELAB. T\|0\|2\| \|I\|A\|0\|3\| \|R\|U\|M\| \|C\|T\|1\|2 | B | - |

| REV. | DESCRIZIONE | DATA | REDATTO | VERIFICATO | APPROVATO |
|---|---|---|---|---|---|
| B | Emissione a seguito istruttoria Anas | 11/2021 | MICROBEL | SCOPPETTA | INFANTE |
| A | Prima emissione | 08/2021 | MICROBEL | SCOPPETTA | INFANTE |