



REGIONE SICILIANA  
LIBERO CONSORZIO COMUNALE DI TRAPANI  
COMUNI DI CALATAFIMI SEGESTA E GIBELLINA

PROGETTO PER LA REALIZZAZIONE DI UN IMPIANTO EOLICO DI POTENZA PARI A  
 $P_n = 75,4 \text{ MW}$  ( $P_i = 72 \text{ MW}$ ), SU TERRENO SITO NEL COMUNE DI CALATAFIMI SEGESTA (TP)  
 IN CATASTO AI FG. 94 P.LLE 246, 247, 368, 248, 340, 411, AL FG. 99 P.LLE 93, 92, 3, AL FG. 107 P.LLE  
 7, 15, 16, 123, 209, 208, 54, 206, AL FG. 104 P.LLE 4, 49, 33, 156, 157, AL FG. 106 P.LLE 93, 86, 23, 94,  
 AL FG. 107 P.LLA 44, AL FG. 105 P.LLA 128, AL FG. 115 P.LLE 192, 136, 281, 66, 208, AL FG. 117 P.LLE  
 38, 28, E AL FG. 98 P.LLE 468, 463, 469, 470, 471 E ALTRE AFFERENTI ALLE OPERE DI RETE NEI  
 COMUNI DI CALATAFIMI SEGESTA E GIBELLINA (TP)

|  |                             |
|--|-----------------------------|
| <p>Timbro e firma del progettista</p> <p><b>Capital Engineering snc</b><br/>Ing. Vincenzo Massaro</p>  <p><b>Capital Engineering snc</b><br/>Ing. Salvatore Li Vigni</p>  | <p>Timbri autorizzativi</p> |
|--|-----------------------------|

## TRANSPORT ROAD SURVEY REPORT

| IDENTIFICAZIONE ELABORATO |                 |                 |              |               |   |            |           |
|---------------------------|-----------------|-----------------|--------------|---------------|---|------------|-----------|
| Livello prog.             | ID Terna S.p.A. | Tipo Elabor.    | N.ro Elabor. | Project ID    | NOME FILE                                   | DATA       | SCALA     |
| <b>PDef</b>               | 202100949       | Relazione       | 18.1         | CANICHIDDEUSI | CANICHIDDEUSI Road Survey<br>15 12 2022.pdf | 22.12.2022 | -         |
| REVISIONI                 |                 |                 |              |               |   |            |           |
| VERSIONE                  | DATA            | DESCRIZIONE     |              |               | ESEGUITO                                    | VERIFICATO | APPROVATO |
| Rev.00                    | 22.12.2022      | Prima emissione |              |               | GR  | MC         | VM        |
|                           |                 |                 |              |               |   |            |           |
|                           |                 |                 |              |               |   |            |           |

|  |  |
|--|--|
| <p>IL PROPONENTE</p> <p style="text-align: center; font-size: 1.2em; font-weight: bold; color: green;">CANICHIDDEUSI WIND SRL</p> <p style="text-align: center; font-size: 0.8em;">Sede legale: Corso di Porta Vittoria, 9 - 20122 - Milano<br/>         PEC: canichiddeusiwind@mailcertificata.net<br/>         P.IVA 12673200965</p> | <p>PROGETTO DI</p> <div style="text-align: center;">  <p>Capital Engineering S.n.c.<br/>           Sede legale: Via Trinacria, 52 - 90144 - Palermo<br/>           e-mail: info@capitalengineering.it</p> </div> <p>SU INCARICO DI</p> <div style="text-align: center;">  <p>Coolbine S.r.L.<br/>           Sede legale: Via Trinacria, 52 - 90144 - Palermo<br/>           e-mail: progettazione@coolbine.it</p> </div> |
|--|--|



**Customer: COOLBINE**

# Transport Road Survey Report

**Project: Canichiddeusi – Calatafimi (TP)  
Italy**

Transport representative:  
*Filippo CARDONE, S.A.E. S.r.l.*

## 1. Summary

According to the Customer's request, it has been analyzed 12xV162 configuration transport feasibility to get to *CANICHIDDEUSI* wind farm.

*Road Survey date: 15/12/2022*

Customer Representative:

Transporter Representative: Filippo CARDONE, S.A.E. S.r.l.

## 2. Specs Description

|                |   |
|----------------|---|
| Project        | <i>CANICHIDDEUSI</i>  |
| Country        | Italy   |
| Location       | Calatafimi (Canichiddeusi) – Province of Trapani (TP) – Sicily Region   |
| Scope          | Planning Stage – Transport Logistic – Feasibility Study   |
| Turbine        | 12xV162 HH119   |
| Transport Mode | <input type="checkbox"/> Standard <input checked="" type="checkbox"/> Transshipment<br><input checked="" type="checkbox"/> Blade Lifter<br><input checked="" type="checkbox"/> Tower<br><input checked="" type="checkbox"/> Nacelle<br><input checked="" type="checkbox"/> SPSS |
| MW             |   |
| Start From     | Port of Trapani (TP)  |

### 3. Weight and Dimensions

#### 3.1 Blades and Nacelle kit Specs

##### 3.1.1 V162 – 6MW HH125m Specs

| Nacelle | length mm | width mm | height mm | Weight kgs |
|---------|-----------|----------|-----------|------------|
|         | 18500     | 4200     | 4450      | 71000      |

| Single blade | length mm | width mm | height mm | Weight kgs |
|--------------|-----------|----------|-----------|------------|
|              | 81100     | 4396     | 4425      | 27700      |

| Hub | length mm | width mm | height mm | Weight kgs |
|-----|-----------|----------|-----------|------------|
|     | 4980      | 4401     | 3812      | 59400      |

| Drive train | length mm | width mm | height mm | Weight kgs |
|-------------|-----------|----------|-----------|------------|
|             | 7500      | 2700     | 3000      | 92500      |

#### 3.2 Tower typology Maximum Diameter: Ø 4,50m

##### 3.2.1 HH125m – Specs (Not Standard)

| Tower            | Bottom end mm. | top end mm. | length mm. | weight kgs. |
|------------------|----------------|-------------|------------|-------------|
| Top section      | 4150           | 4000        | 30000      | 53000       |
| Middle section 4 | 4150           | 4150        | 28000      | 73000       |
| Middle section 3 | 4150           | 4150        | 20720      | 75000       |
| Middle section 2 | 4150           | 4150        | 16800      | 77000       |
| Middle section 1 | 4150           | 4150        | 14280      | 77000       |
| Bottom section   | 4500           | 4150        | 12500      | 80000       |

### 3.2.2 HH105m Specs

| <b>Tower</b>            | <b>Bottom end mm.</b> | <b>top end mm.</b> | <b>length mm.</b> | <b>weight kgs.</b> |
|-------------------------|-----------------------|--------------------|-------------------|--------------------|
| <b>Top section</b>      | 3670                  | 3258               | 33000             | 51000              |
| <b>Middle section 2</b> | 4028                  | 3670               | 28840             | 67000              |
| <b>Middle section 1</b> | 4041                  | 4028               | 24920             | 83000              |
| <b>Bottom section</b>   | 4450                  | 4041               | 15840             | 83000              |

### 3.2.3 HH119m Specs

| <b>Tower</b>            | <b>Bottom end mm.</b> | <b>top end mm.</b> | <b>length mm.</b> | <b>weight kgs.</b> |
|-------------------------|-----------------------|--------------------|-------------------|--------------------|
| <b>Top section</b>      | 4150                  | 4000               | 30000             | 52000              |
| <b>Middle section 4</b> | 4150                  | 4150               | 21000             | 47000              |
| <b>Middle section 3</b> | 4150                  | 4150               | 21000             | 63000              |
| <b>Middle section 2</b> | 4150                  | 4150               | 18760             | 76000              |
| <b>Middle section 1</b> | 4150                  | 4150               | 14280             | 79000              |
| <b>Bottom section</b>   | 4500                  | 4150               | 11560             | 80000              |

#### **4. Preamble**

SAE has been appointed to conduct a feasibility study for a project of COOLBINE located near Calatafimi (TP) in Sicily region in Italy. The study has been commissioned in order to define the feasibility to deliver wind turbine components to **CANICHIDDEUSI wind farm**, which consists of 12xv162 having several tower typologies.

The study that follows has been conducted based on the packing list that COOLBINE provided to SAE on 12/12/2022 and the site visit was executed on 15/12/2022.

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## **6. Executive Summary**

Following the visit carried out on December 12, 2022, from the loading point to no. 2 site access, assuming all modifications described in this report, SAE found the possibility to transport all components to Canichiddeusi wind farm access.

## 7. General Route Description: from Port of Trapani



[CANICHIDDEUSI V162 kmz](#)

- **Port of Trapani (TP)**
- **Via Isola Zavorra (TP):** from Port of Trapani to Via I Dorsale Z.I.R. (TP);
- **Via I Dorsale Z.I.R. (TP):** from Via Isola Zavorra to Via Libica (TP);
- **Via Libica (TP):** from Via I Dorsale Z.I.R. to Raccordo Autostradale A29 Palermo-Mazara;
- **Raccordo Autostradale A29 Palermo-Mazara:** from Via Libica to A29 Dir;
- **A29 Dir:** From Raccordo Autostradale to A29;
- **A29:** from A29 Dir to A29 Gallitello exit in reverse;
- **SB18:** from A29 to SB16;
- **SB16:** from SB18 to **transshipment area (Obs.11)**;
- **SB16:** from Transshipment area to SB14;
- **SB14:** from SB16 to **1<sup>st</sup> Site Access**;
- **SB19:** from SB16 to SP14;
- **SP14:** from SB19 to **2<sup>nd</sup> Site Access**.

## 8. Map of observations

### 8.1 Map of Observations from Obs. 1 to Obs. 8



### 8.2 Map of Observations from Obs. 9 to Obs. 52



## 9. Road Modifications – from the port of Trapani

### Observation 1

Port of Trapani – loading components from a private property in front of the port exit.  
Use the existing exit from a private property where components will be stored.  
Make practicable the sidewalk as shown in the picture in order to reduce the gap with the road level.

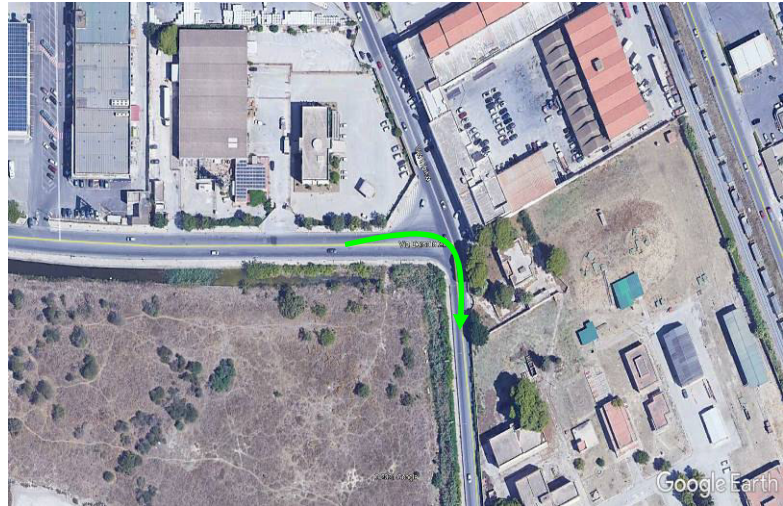
**All components will be transported with conventional trailers and then transferred on Blade Lifter and modular trailers in a dedicated transshipment area.**

N 38.010843° E 12.527949°



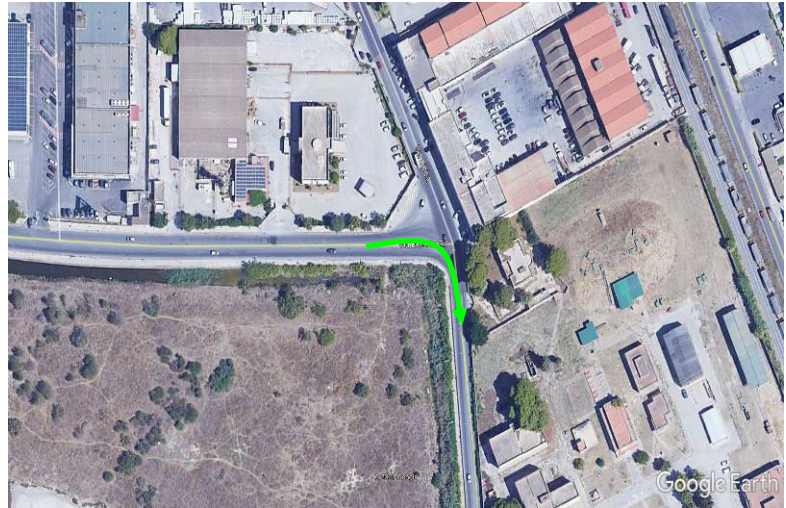
**Observation 2.01**

The pole on the left has to be removed.  
The tree branches on the left have to be cut.  
N 38,01073° E 12,53542°



**Observation 2.02**

The pole on the left has to be removed.  
The tree branches on the left have to be cut.  
N 38,01073° E 12,53542°



**Observation 2.03**

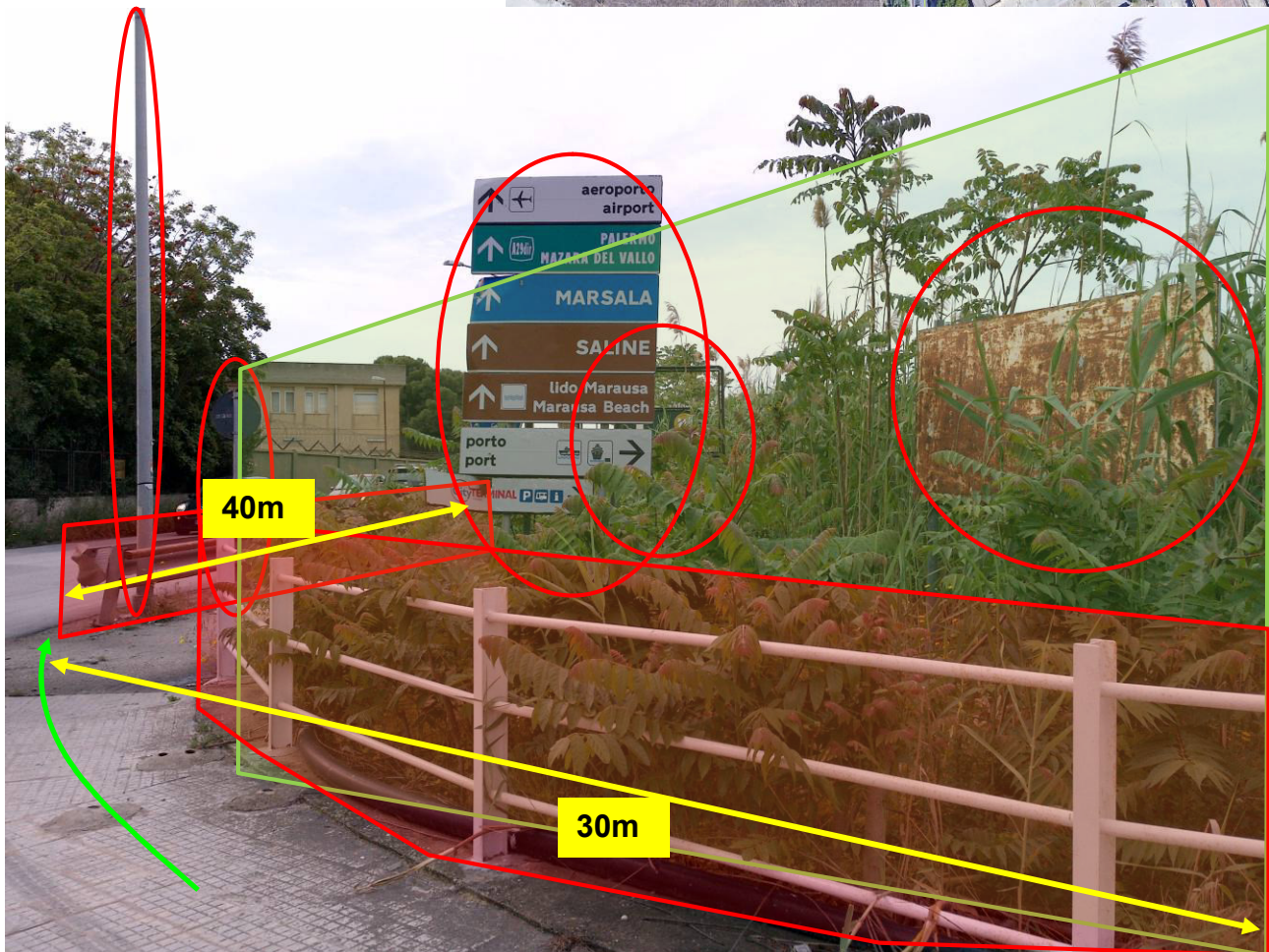
The sidewalk has to be made accessible as in the picture for the entire curving radius.

N 38,01065° E 12,53571°



### Observation 2.04

The guardrail on the right has to be removed.  
 The pole on the right has to be removed.  
 The railing on the right has to be removed.  
 The no. 2 road signs have to be removed.  
 The no. 2 billboards have to be removed.  
 The vegetation on the right has to be cut.  
 N 38,0107° E 12,53568°





**Observation 2.05**

The guardrail on the right has to be removed.

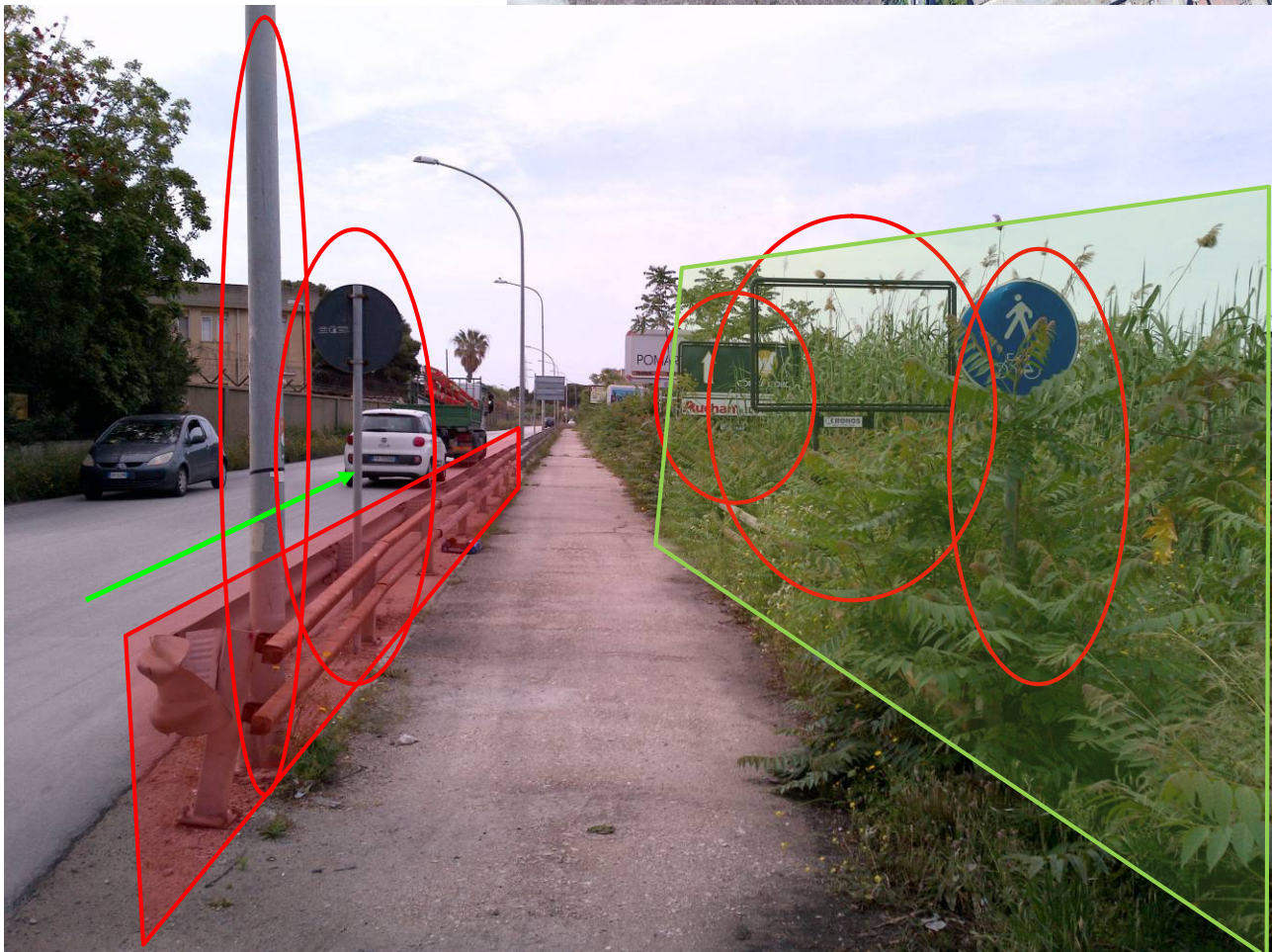
The pole has to be removed.

The no. 2 road signs have to be removed.

The no. 2 billboards have to be removed.

The vegetation on the right has to be cut.

N 38,01065° E 12,53571°



**Observation 3**

The traffic island has to be made accessible. All road signs inside have to be removed.

Proceed against the traffic flow.

N 38.004150° E 12.535467°



**Observation 4**

The no. 4 poles have to be removed.

The vegetation on the right has to be cut to a depth of 6m. All the road signs in this area have to be removed.

N 38,00398° E 12,53784°



### Observation 5

The no. 2 poles have to be removed.

The road sign has to be removed.

The vegetation on the right has to be cut to a depth of 6 meters.

The vegetation on the left along the bend has to be cut.

N 38,0041° E 12,53856°



**Observation 6**

The railing on the left has to be removed (no. 5 elements).

The traffic island on the left has to be made accessible as in the picture.

N 38,01021° E 12,5536°



**Observation 7**

The existing bypass has to be arranged to use with all convoys.

N 38,00881° E 12,56848°



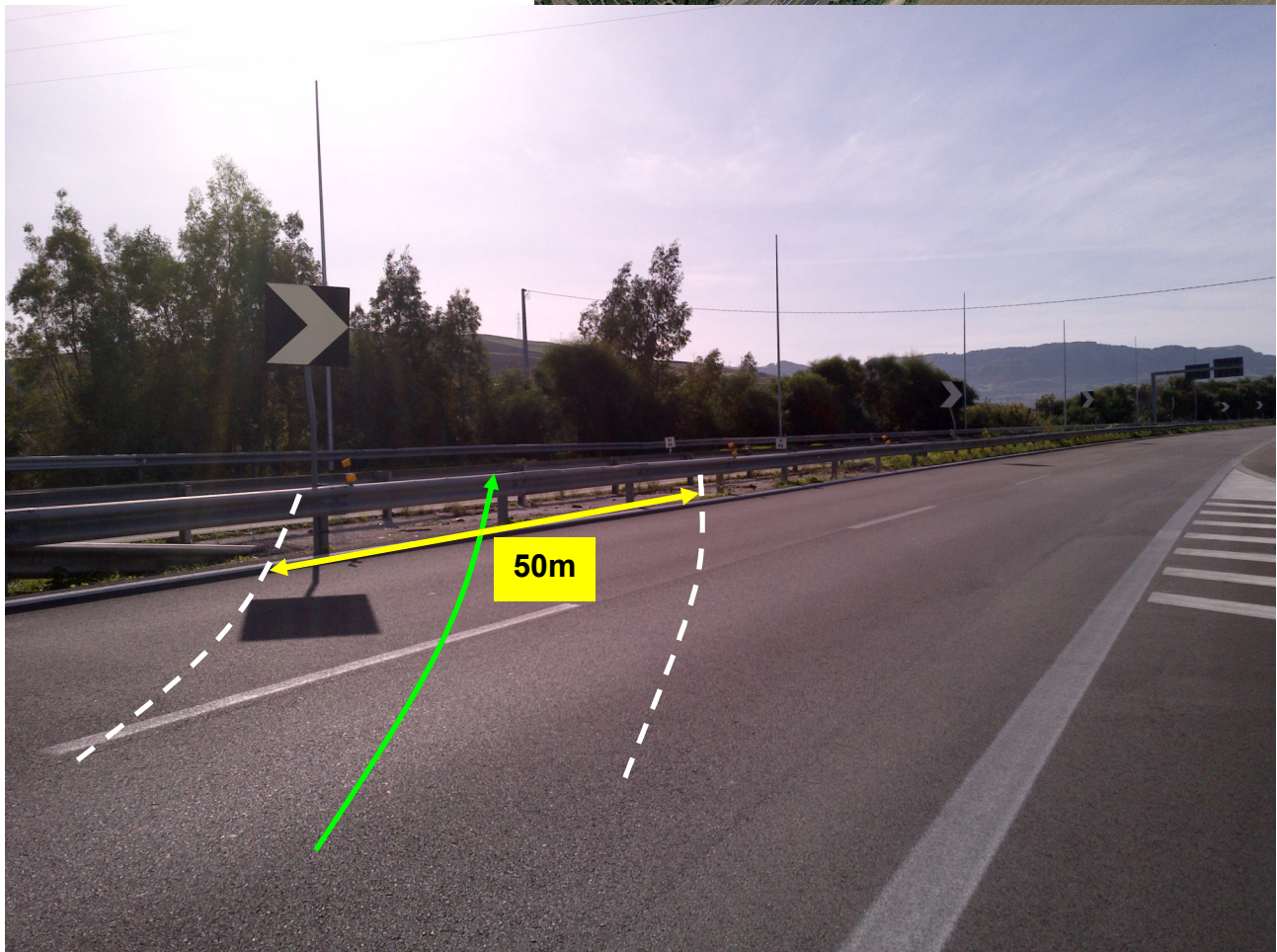
**Observation 8**

Proceed towards MAZARA.  
N 37,96402° E 12,91892°



**Observation 9.01**

Open a gate 50mt large on the highway by removing guardrails and road signs.  
N 37.858630° E 12.951881°





**Observation 9.02**

Take the exit for Gallitello in reverse from the opposite lane.

1) straight on; 2) reverse

N 37.858484° E 12.951928°

