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the European Union

**CONNECTA**

# **Preparation of selected main/detail designs for improving road safety conditions (risk elimination) along high risk sections in the TEN-T indicative core/comprehensive road networks in the Western Balkans**

**CONNECTA-TRA-CRM-REG-RS-DD-05**

**5th Technical Committee on Road Safety**

**23.09.2020**

**Belgrade, Serbia**

# Project Team

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**Design team**

**Bosnia&Herzegovina**  
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**North Macedonia**  
**Design team**

**Kosovo\***  
**Design team**

**Montenegro**  
**Design team**

**Serbia**  
**Design team**

*(\*) This designation is without prejudice to positions on status and is in line with UNSCR 1244 (1999) and the ICJ Opinion on the Kosovo declaration of independence.*

# Purpose & Objectives

## Purpose of TA

Preparation of **Main/Detailed designs** along selected priority road sections of Indicative Extension of the Core/Comprehensive Network to the Western Balkan, on the basis of recent road safety inspections (RSI) recommendations for needed interventions

## Objectives and expected benefits

The **main** objective is the **improvement of road safety conditions** (and reduction of fatalities and serious injuries) along the Indicative Extension of the Core/Comprehensive Network to the Western Balkan.

The **specific** objective of this TA is **the preparation of Main/Detail Designs for the identified highest risk road hazards and preparation** (for the Road Authorities of SEE parties) **to be further implemented** (as per CONNECTA respective individual pilot RSI reports, June 2018) in order to improve safety conditions;

**The expected benefits are:**

- **Reduction of the number of road accidents;**
- **Reduction of the severity of road accidents, hence of their consequences (fatalities and serious injuries);**
- **Improved safety indices;**
- **Lower risk factors;**
- **Safer infrastructure**

# Results & Scope of Work

## Expected results

**Improving safety conditions by designing identified feasible interventions** along Indicative Extension of the Core/Comprehensive Network to the Western Balkan (comprising 10 road sections) and more specifically:

- scoping on feasible interventions to be designed
- conduct of any needed (small scale) topographic surveys
- preparation of design documentations and technical specifications of selected interventions for each road section
- Preparation of full **tender documentation is not envisaged**

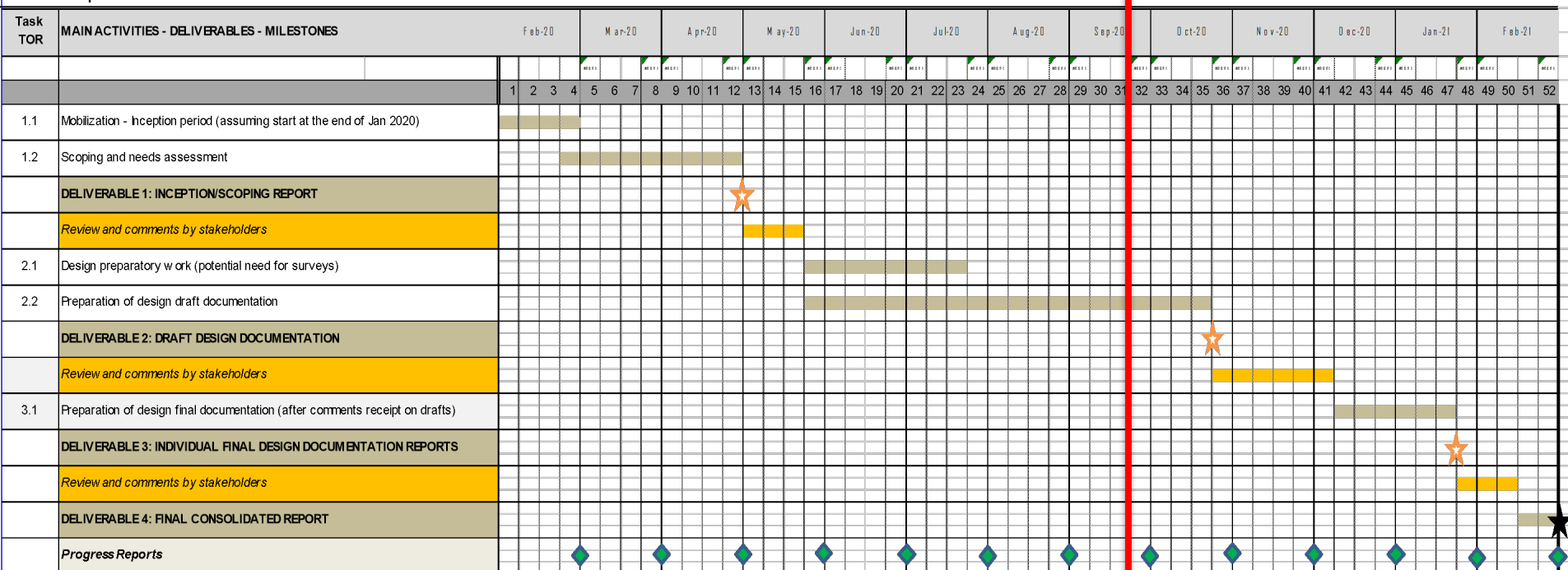
## Scope of Work

The list of sections to be designed is as follows:

1. ALB Shkoder-Koplik (length 13km) – route 2b - core
2. ALB Fushe Kruje-Lezhe (length 35.9km) – route 2b - core
3. BiH Ozimice-Topcic Polje (24 km) – corridor Vc - core
4. BiH Jablanica-Potoci (36.3km) – corridor Vc – core
5. MKD Bitola- Prilep (42 km) – corridor Xd - comprehensive
6. KOS Fushe Kosove -Gjurgjice (28km) – route 6b – comprehensive
7. MNE Podgorica-Mioska (54 km) – route 4 - core
8. SRB Bujanj Potok-Mali Pozarevac (20.6 km) – corridor x - core
9. SRB Stepojevac -Celijski (22.1 km) – route 4 – core
10. SRB Orlovaca-Stepojevac (22.1km) – route 4 – core

# Project Timetable and Deliverables

Tentative Implementation Schedule



## Critical Decision Points and Beneficiary Feedback/Participation Schedule

Review and comments by stakeholders on Scoping report

mid-May 2020

Review and comments by stakeholders on Draft design documentation

mid-October 2020

Review and comments by stakeholders on Final design documentation

January 2021

\*Dates are indicative

# Scoping period

## Identification of

- background documentation, especially geo/topo maps and DTM availability
- site inspections
- feasible measures to be designed (vis a vis the respective RSI proposals)
- new emerging TA needs (e.g. small scale topo/geo surveying, potential expropriations needs,
- design review and approval procedures (especially for specific interventions, such as street lighting)
- early identification of additional stakeholders when necessary (such as Ministries of Interior) across the region
- risks and uncertainties updating

## Risks and assumptions

- 1.5 year period between RSI's and new TA
- Update on new plans for each section
- Status of developed designs
- Progress of routine and heavy maintenance
- Status of construction works

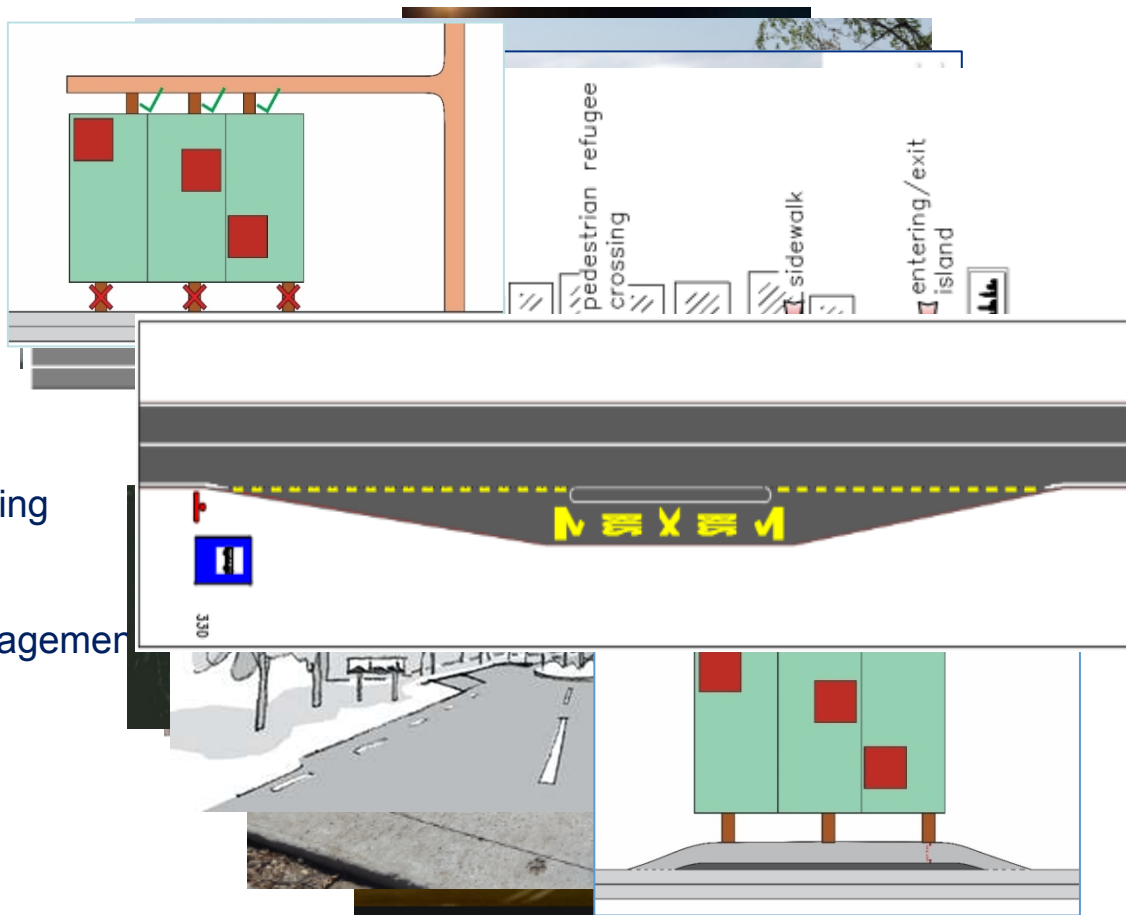
# Main results of previous RSI's – needed measures

## Main results

### 1. Assessment of the deficits

### 2. Proposals and Recommendations

- Improve the guardrail system
- Unsafe guardrail ends
- Tunnel entrances
- Pedestrian crossing with proper lighting
- Agriculture access roads
- Additional signage for curves
- Built-up Area Gates and Speed Management
- Access control
- Bus stops



# Feasible measures to be designed

## Feasible “interventions”

- Implementation in short (at least medium) term
- Directly designed at “detailed design level”

## Main limitations

- Additional survey needed
- Cadastral - Right of Way unknown
- Long-lasting procedures
- Long term measures
- Existing design needed

## Sustainable “interventions”

- adopted and supported by relevant stakeholders and road users

ALB Shkoder - Koplik					
Road safety measures	To be included in Detailed design (Draft)	Possible limitations per SoW	Comments from beneficiaries	Routine Maintenance scope of works	To be included in Detailed design (Final)
<b>Guardrails:</b>					
Unsafe guardrail ends/ terminals	Y	AS, EDN	To change all end terminals with EN 1317. Topo-survey only local required.	N	
Lack of guardrails on high slopes	Y	AS, RoW	Topographic survey for detailed design needed	N	
Missing/damaged guardrails	Y	-	Damaged or missing guardrails will not be replaced/installed, because is included within Maintenance procedure. Not to be included at SoW.	Y	N
Unprotected fixed objects	Y	AS, RoW	Investigation by ARA for the object approval/permission. Topo-survey only local required.	N	
Concrete guardrail blocks not connected properly	Y	-	Not to be included at SoW.	Y	N
<b>Pedestrians:</b>					
Pedestrian crossing without proper lighting	Y	EDN, LLP, AS	Only solar or other self-sustainable ('independent') lightning system may be part of the detailed design. Topo-survey	N	



## Current status and planned activities

### Finished activities

- Initiated as per AO55 of EC/DG NEAR, 24/01/2020
- Kick-off Meeting – held at TCPS premises on 06/02/2020
- Missions and inception/scoping stage meetings per table below
- Inception/Scoping Report accepted on 01/06/2020

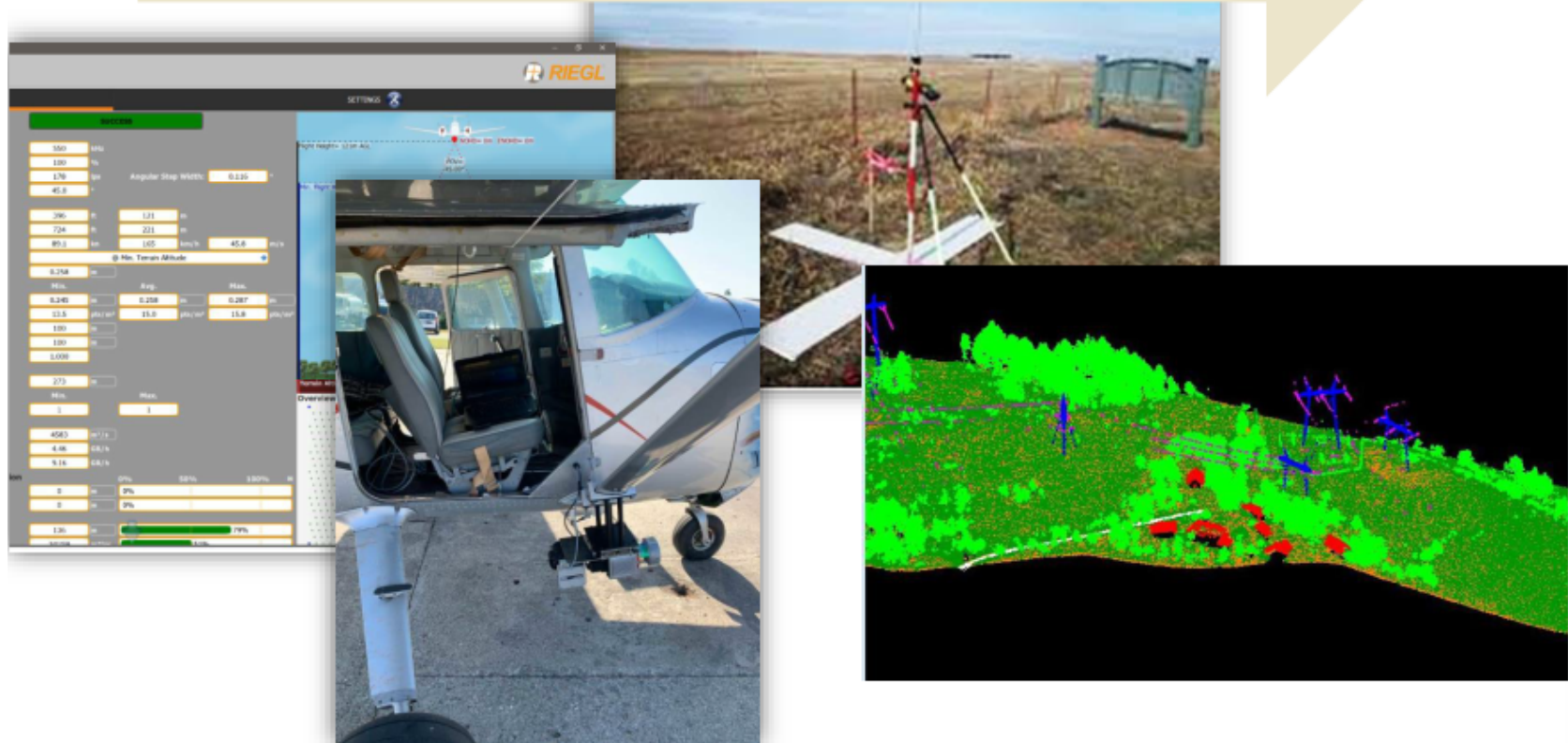
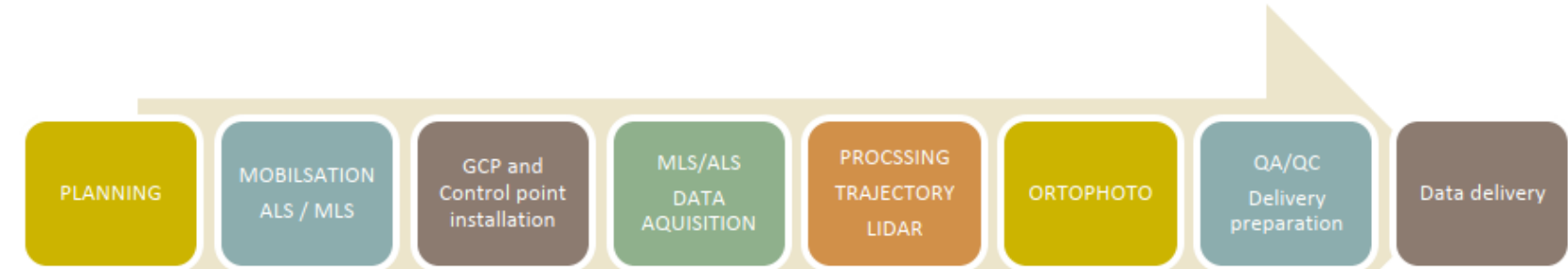
RP	Initial meeting Proposed dates	Initial meeting	Venue
		Actual date	
ALBANIA	February 19-20	February 20	MMD office in Tirana
BOSNIA AND HERZEGOVINA	March 31 or April 1	March 18	Tele-conference (Skype)
NORTH MACEDONIA	March 24-25	March 24	Tele-conference (Skype)
KOSOVO	March 10-11	not held	Email exchange of data
MONTENEGRO	March 4-5	March 5	MoTMA office in Podgorica
SERBIA	February 26-27	February 27	MoCTI office in Belgrade

- Design preparatory work - Geodetic (topographic) Surveys and ortho-photo mapping -finished

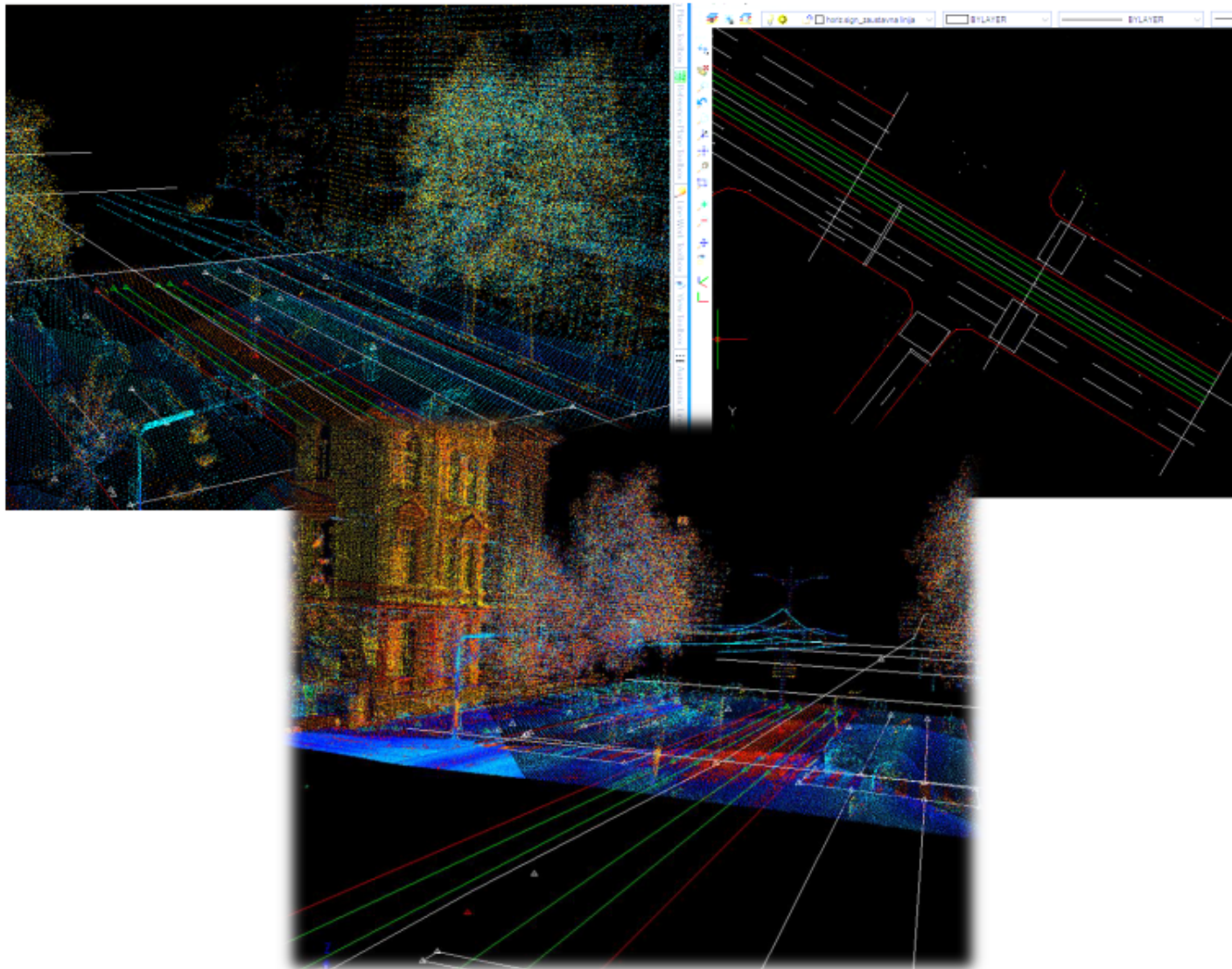
### Planned activities

- Detailed feasible measures to be confirmed with the Road Authorities- by 25/09/2020
- Preparation of Draft Design Report (with cost estimates) – by 09/10/2020
- Preparation of design final documentation - approved by January 2021

## WORK BREAKDOWN STRUCTURE – LIDAR AND ORTOPHOTO

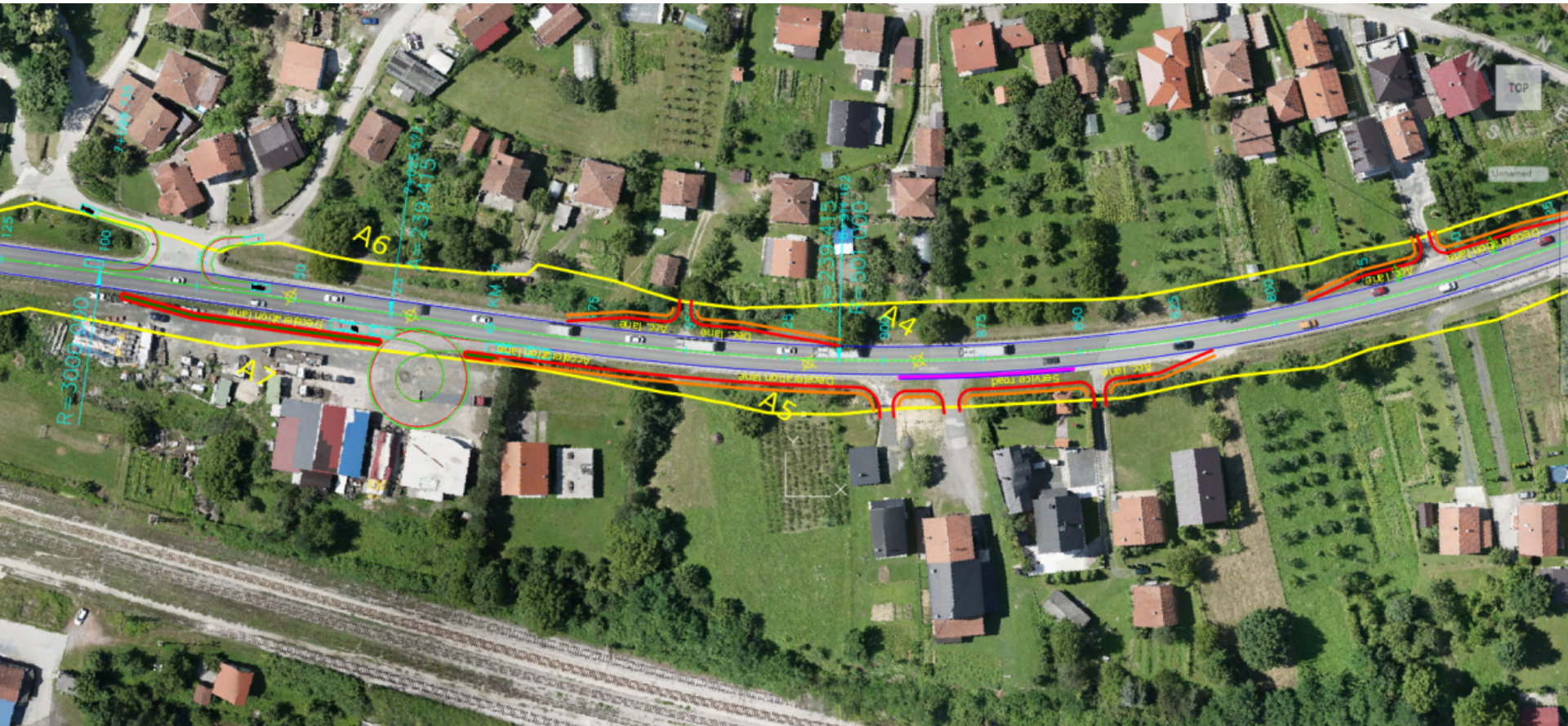


### POINT CLOUD AND FEATURE EXTRACTIONS - MLS





# Feasible measures - Design in progress - Examples

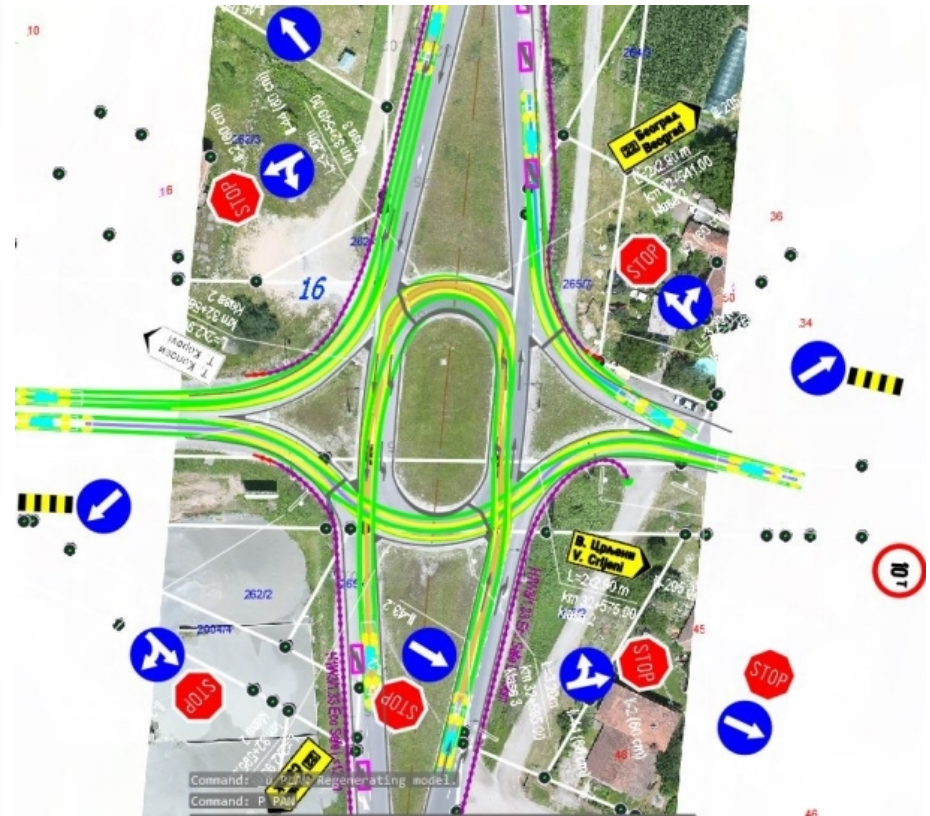
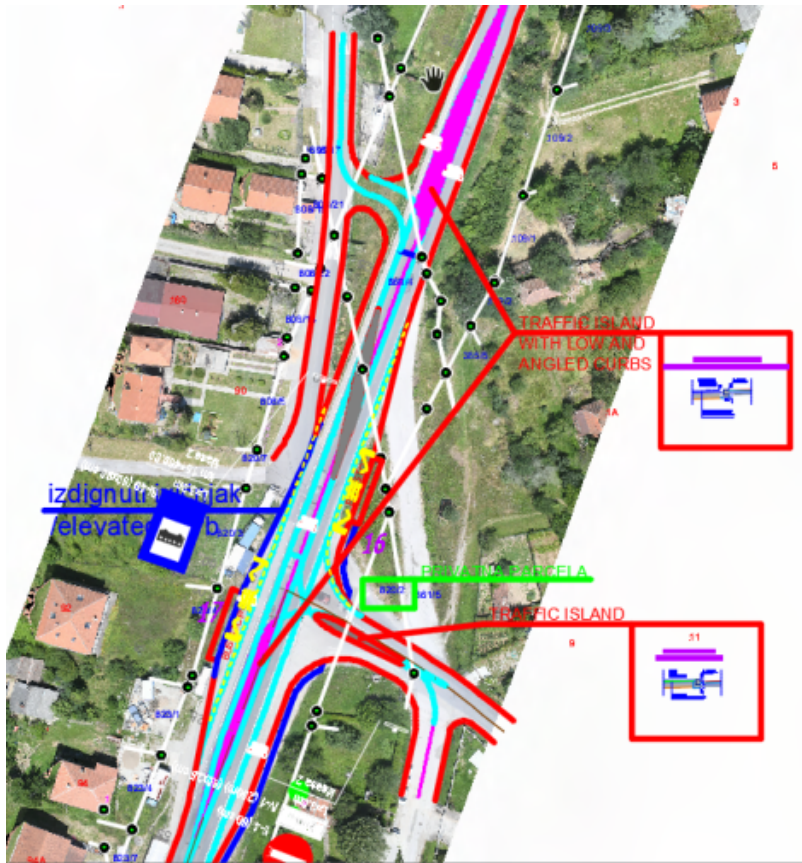








# Feasible measures - Design in progress - Examples



# Questions and Discussions

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**All Participants**

**We welcome your input and ideas**

Thank you!



**CONNECTA Project team**

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