



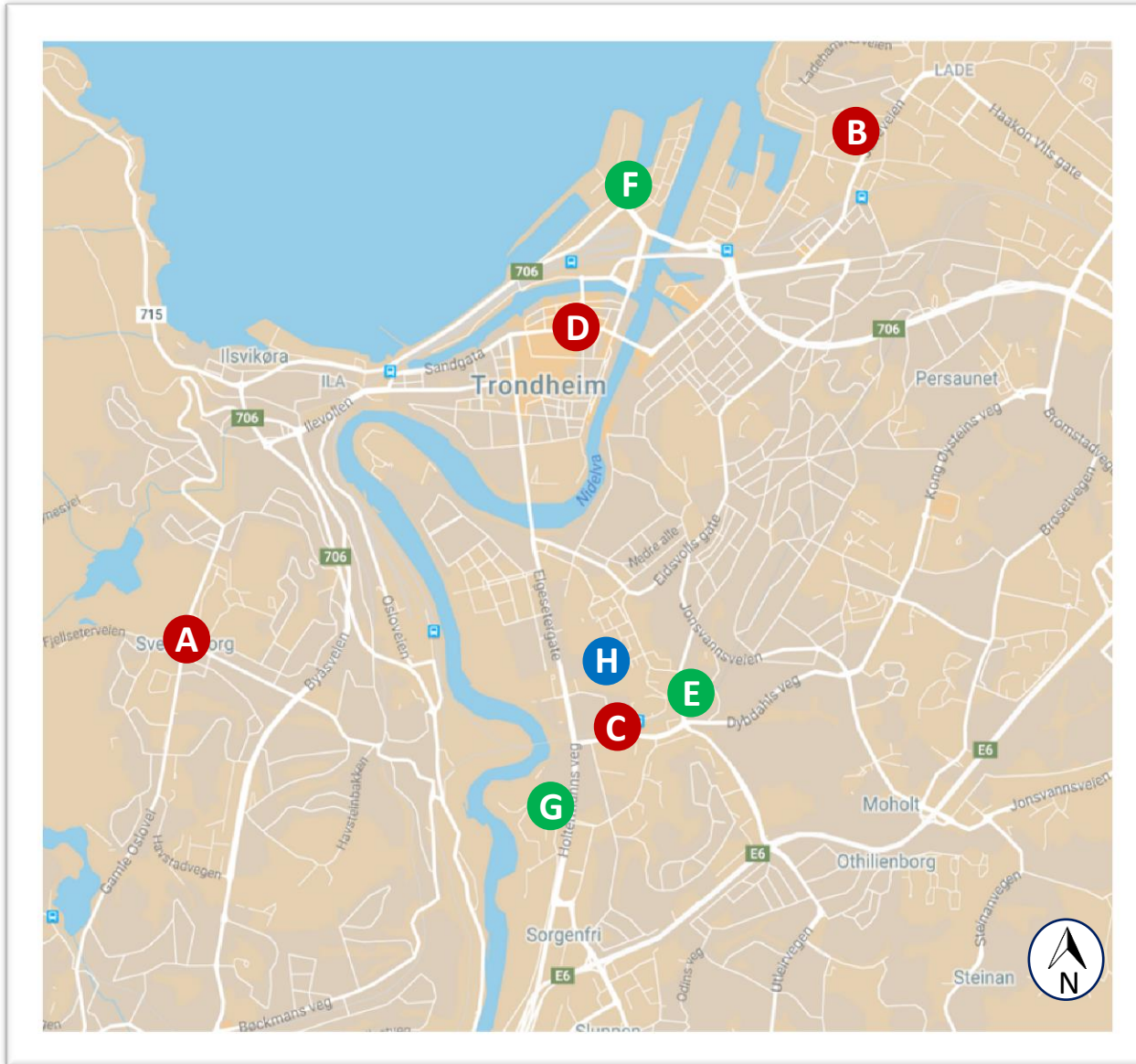
Video-recordings of truck-bicycle encounters

Nordisk Trafiksikkerhedsforum 2017



- Test the method
- Observe different infrastructure layouts (search for behavior and conflicts)





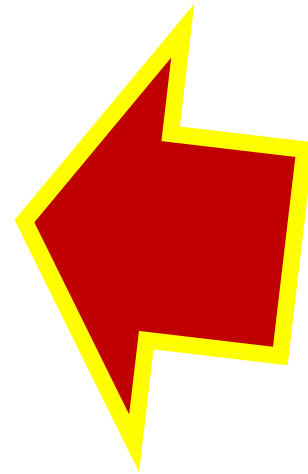
- Right-turning trucks on signalised intersections (sites A-D)
- Cycle/zebra crossings at intersection's leg (sites E-G)
- Delivery area along the cycle lane (site H)



- Recordings during morning and afternoon peak hours, 10 weekdays
- Recordings were manually reviewed
- A conflict was recognised by the researcher based on the presence of an “obvious” evasive action.
- A several behavioural patterns were analysed
- Event based approach to exposure enabled to compare

CONFLICT

https://www.youtube.com/watch?v=VydXFGL-_PY&feature=youtu.be



- Several scenarios
- Most risky one:

Both a cyclist and truck approaching the intersection (having green light) next to each other

5 conflicts within 21 encounters on site D

RIGHT-TURNING ON SIGNALISED INTERSECTIONS

<https://www.youtube.com/watch?v=CwS5BmpvMRw>



*What was “unique”
on this site?*
Cycle lane + similar
green signal

RIGHT-TURNING ON SIGNALISED INTERSECTIONS

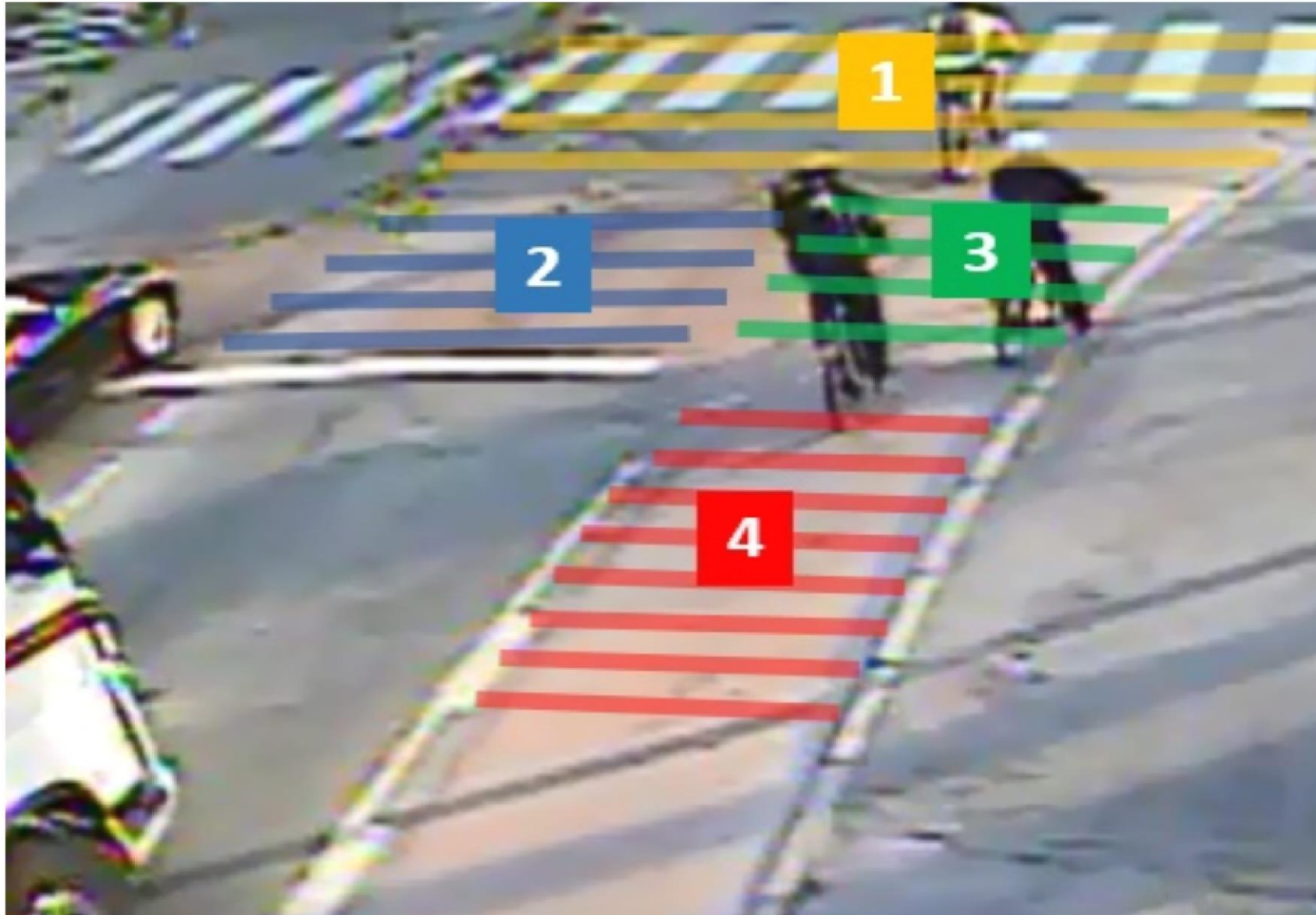
Similar pattern, but no conflicts observed on site C

<https://www.youtube.com/watch?v=ej5anWbYw4g>

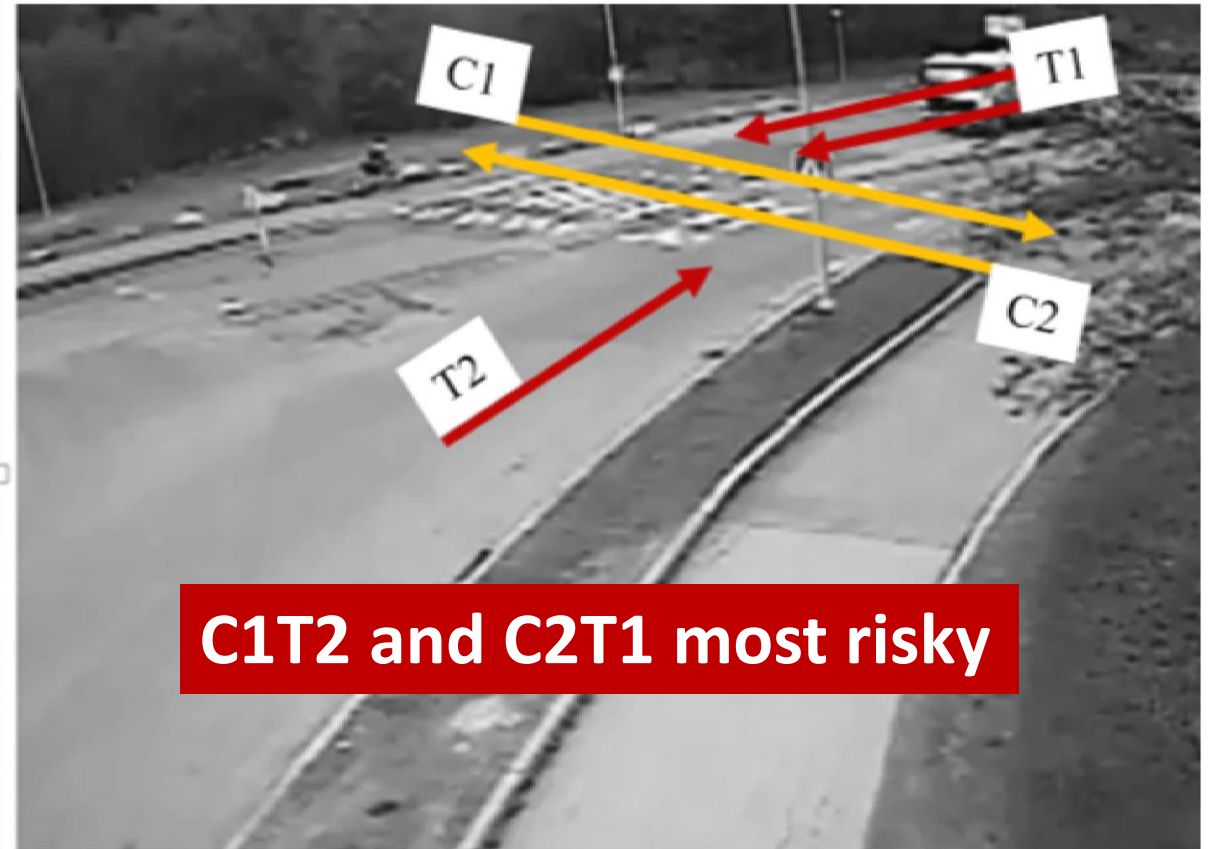
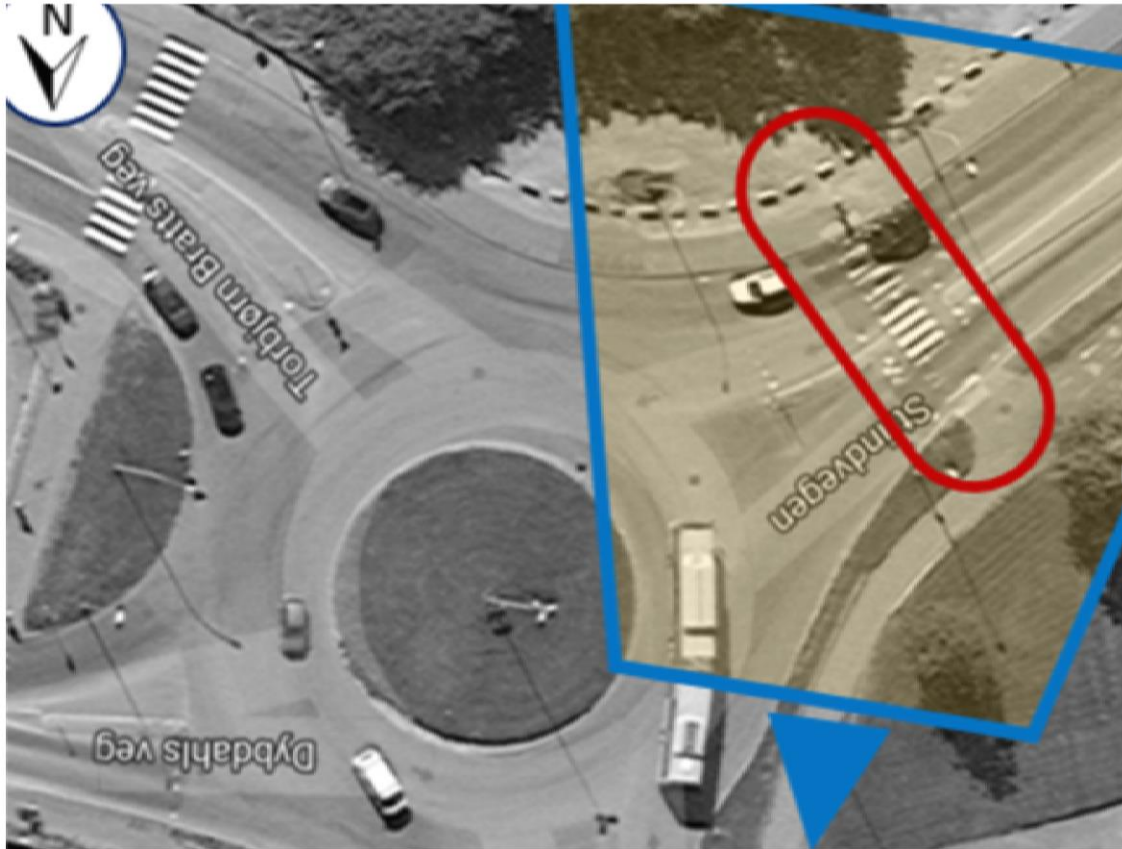


other sites without
cycle lane – cyclists
stayed behind the
truck

BEHAVIOUR ON SIGNALISED INTERSECTIONS



CROSSINGS



Factors: two-lane approach; inconsistency of cycle infrastructure

DELIVERY AREA



DELIVERY AREA



DELIVERY AREA

<https://www.youtube.com/watch?v=d0vaonoBuvM>



DELIVERY AREA



- The speeds not measured... subjectively very low
- Diversity of local conditions
- Not only right-turning trucks
- “Subjective” recognition of conflicts
- Cooperative planning needed

FUTURE RESEARCH IDEAS

- Complexity of risk factors
- Construction logistic
- Urban freight data
- Cyclists' gender
- E-bikes
- Autonomous vehicles...



THANK YOU

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