



EUROPEAN COOPERATION IN SCIENCE AND TECHNOLOGY



COST ACTION TU1103:

OPERATION AND SAFETY OF TRAMWAYS IN INTERACTION WITH PUBLIC SPACE

FOLLOWING-UP IN HUNGARY

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Lyon, France – 03-05th of November 2016.

COST Action TU1103

PASSENGER PLATFORM DESIGN - SIZING



COST Action TU1103

DESIGN OF TRAMLINES

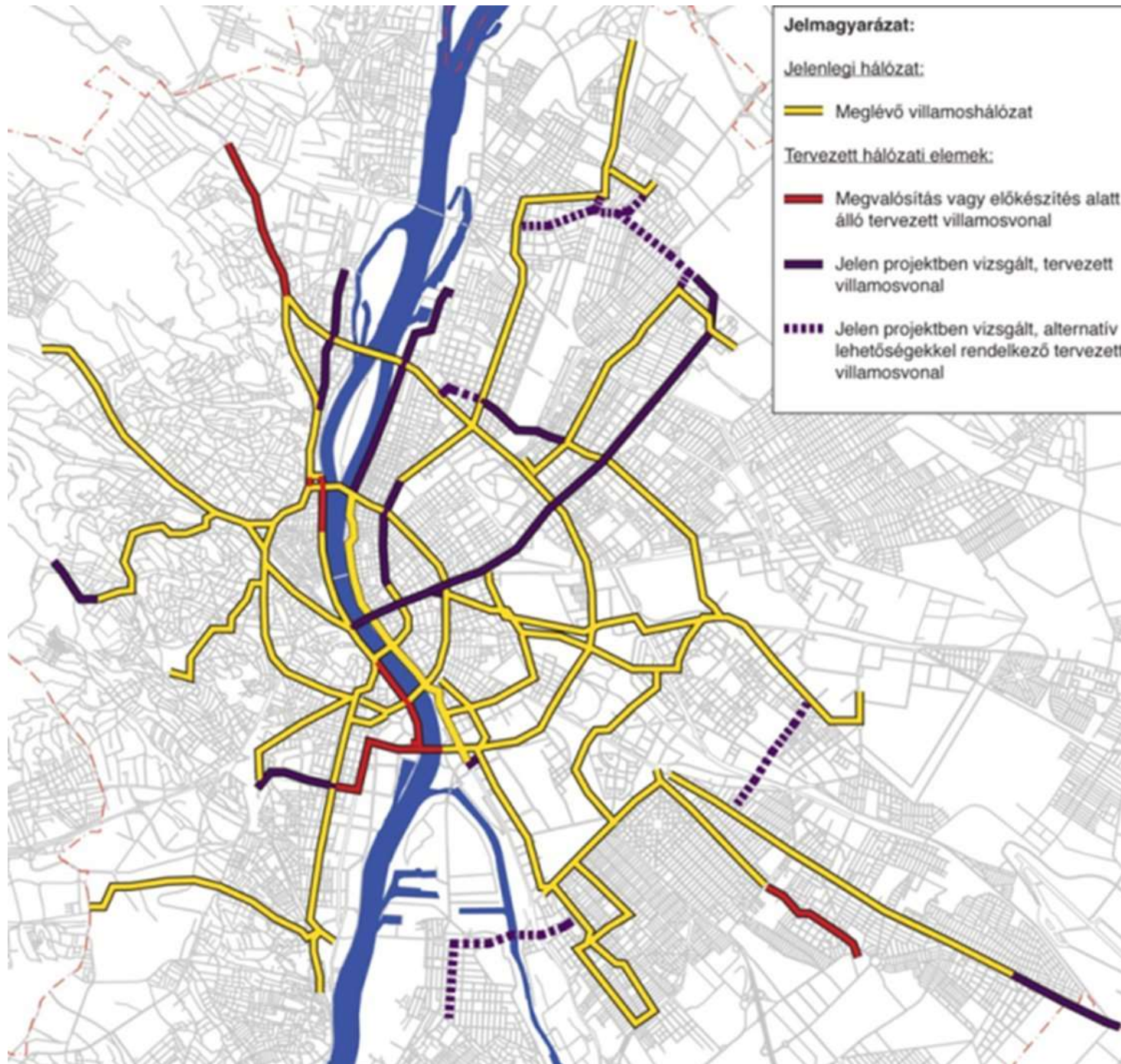
PRACTICE IN HUNGARY

- Main regulation: for railways
- Road Manual: Design of facilities for public transportation
- Manuals for operators

- Design principles and technical parameters about infrastructure, rails, crossings, etc.
- About stops, stations and terminals: limited regulations for central, inner and outer platforms
- Main aspects: number of passengers, traffic needs, characteristics of operating vehicles - but no exact design method is given



PHOTO



BUDAPEST CENTRE OF TRANSPORTATION

BKK

- 36 tramlines
- >500 vehicles
- extensions
- developments
- maintenance







COST Action TU1103

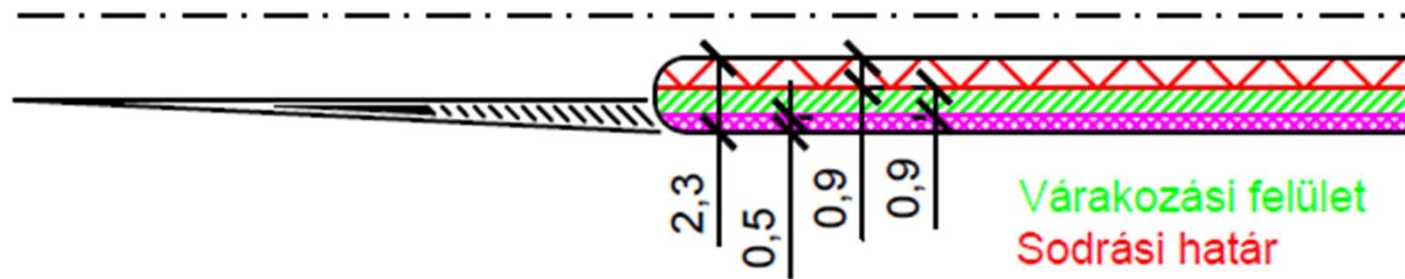
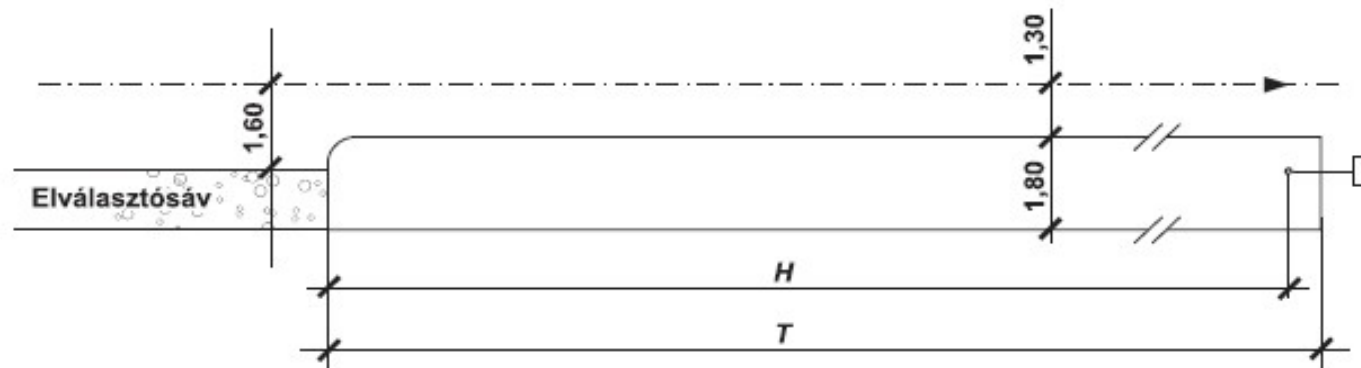
PASSENGER PLATFORM DESIGN - SIZING

INTERNATIONAL PRACTICE



Platform	AUS	UK	Ireland	Hungary
Island	2x3 +1,80 m	> 1,50 m	4 m	3 m
Marginal/side	3 + 1,50 m	3 + 1,5 m	3 m	1,80

HUNGARIAN REGULATIONS



Várakozási felület
Sodrési határ
Közúti úrszelvény

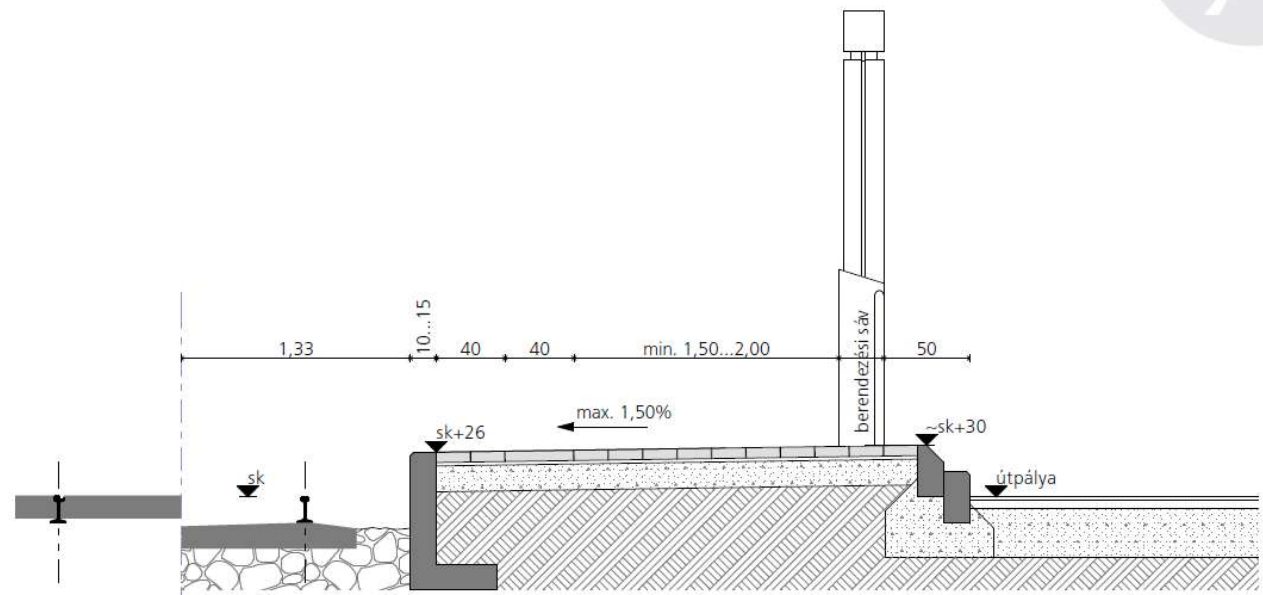
Waiting area
Drifting area
Road clearance

PLATFORM DESIGN - SIZING

NEW RESEARCH – BSC THESIS BY GERGELY SZÜCS

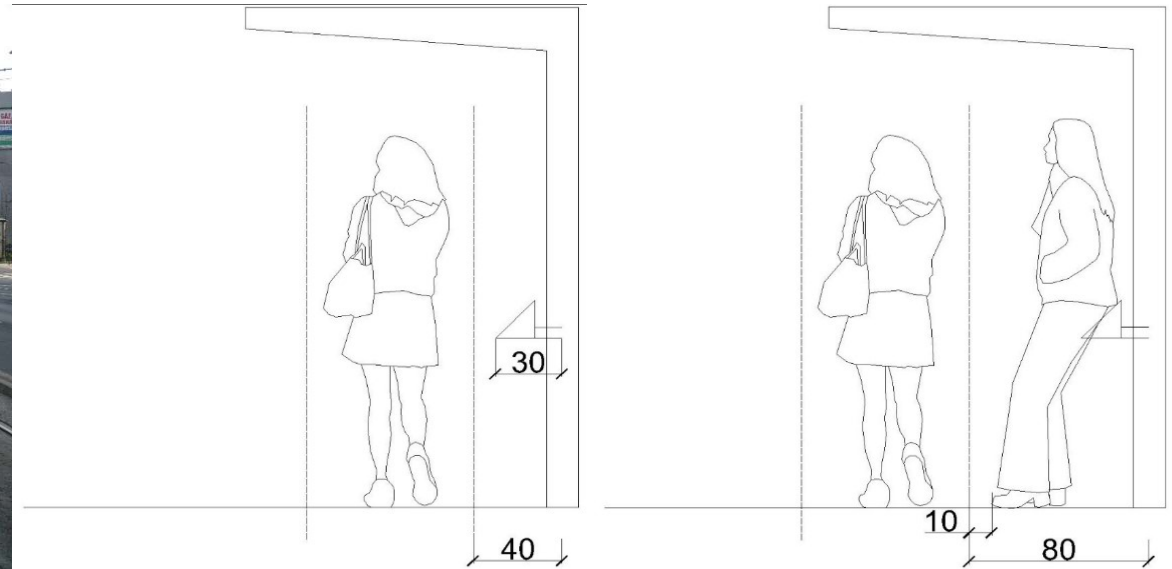
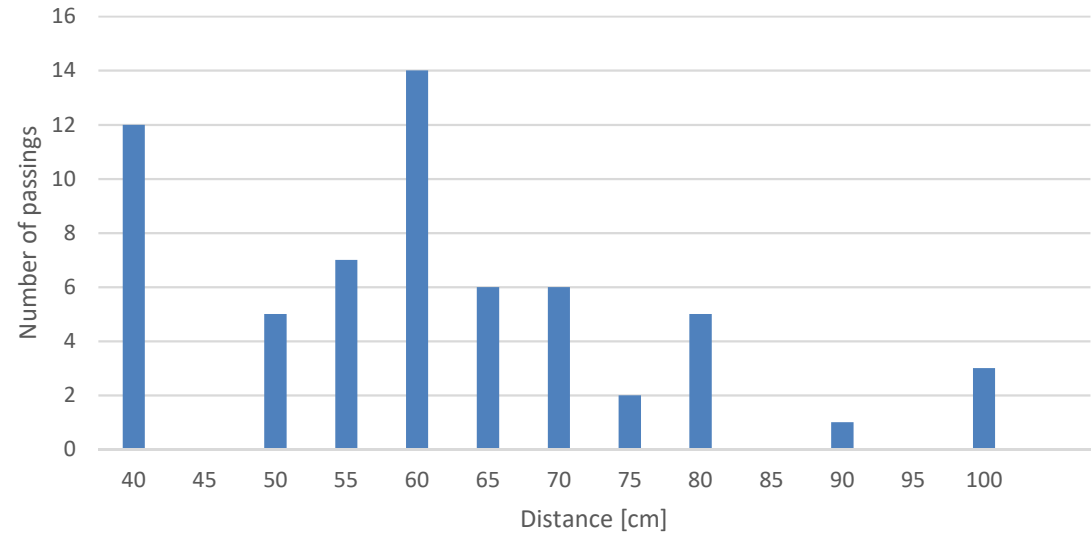
Studied:

- Level of service
 - Number of passengers
 - Speed of passengers
 - Movements of passengers
 - Clearance of obstacles
- Objective: to define dead space around obstacles and apply it to design process

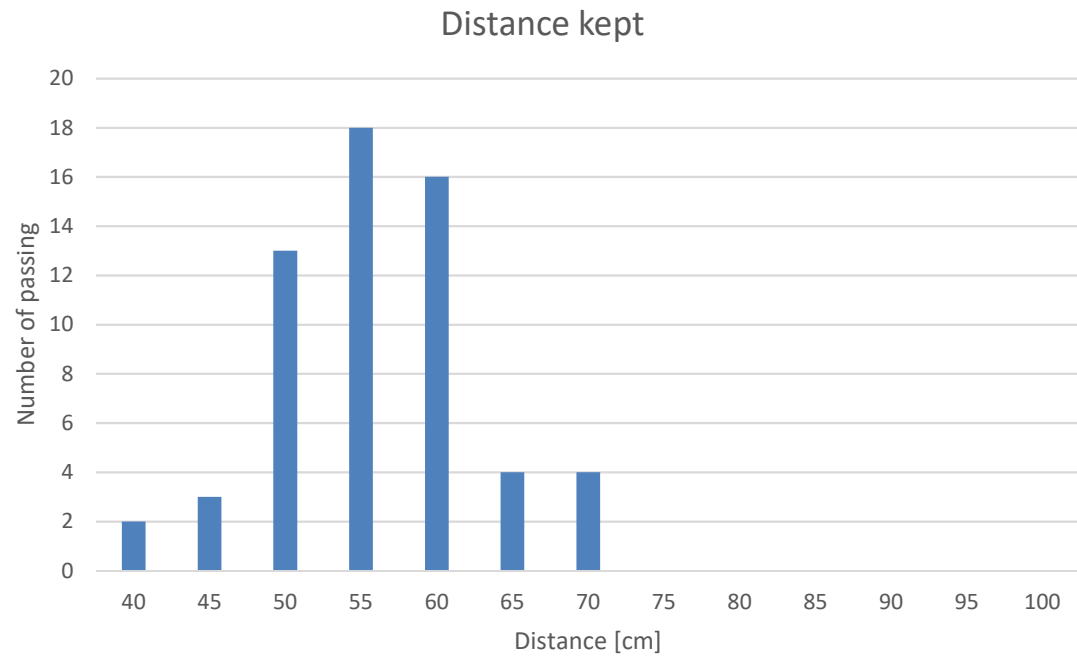
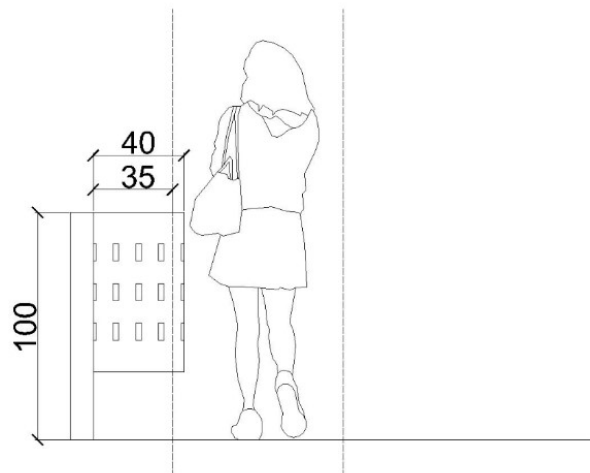


STANDS

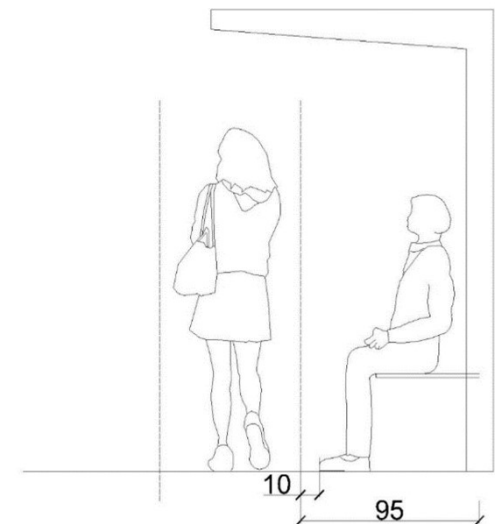
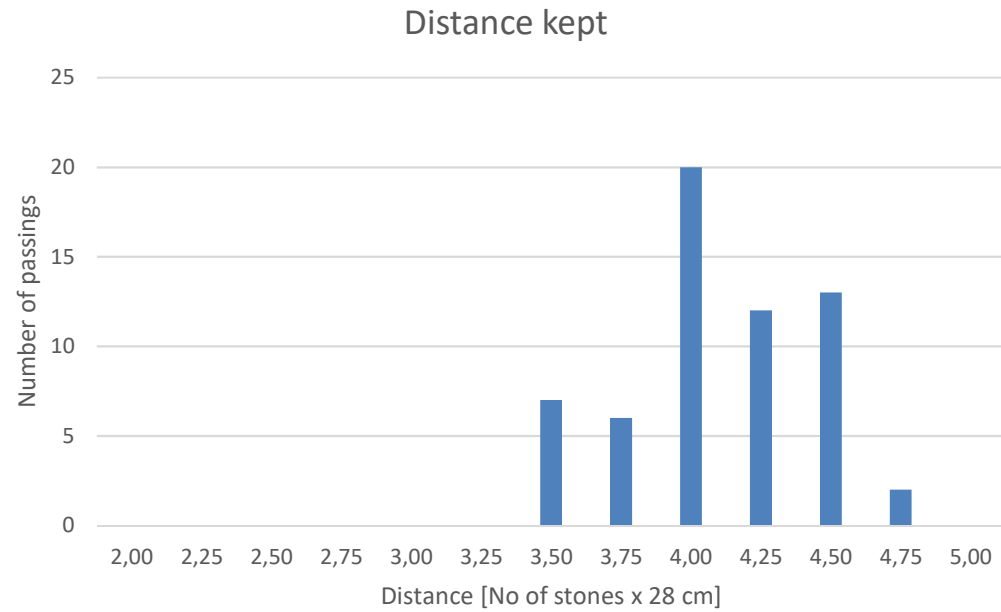
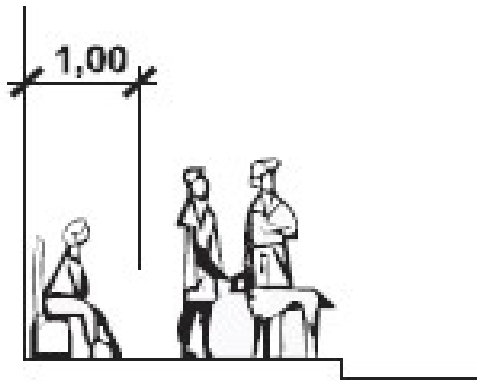
Distance kept from stands



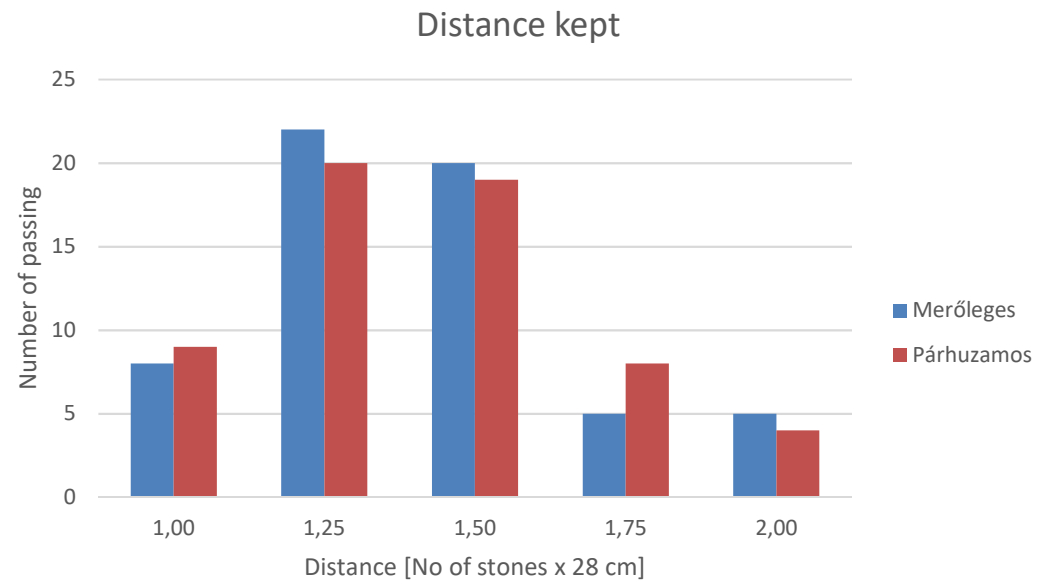
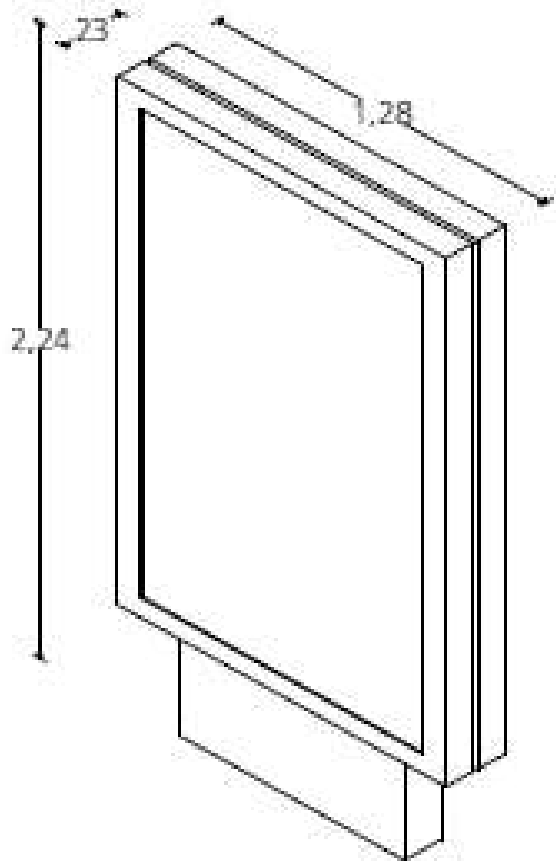
RUBBISH BIN



BENCHES

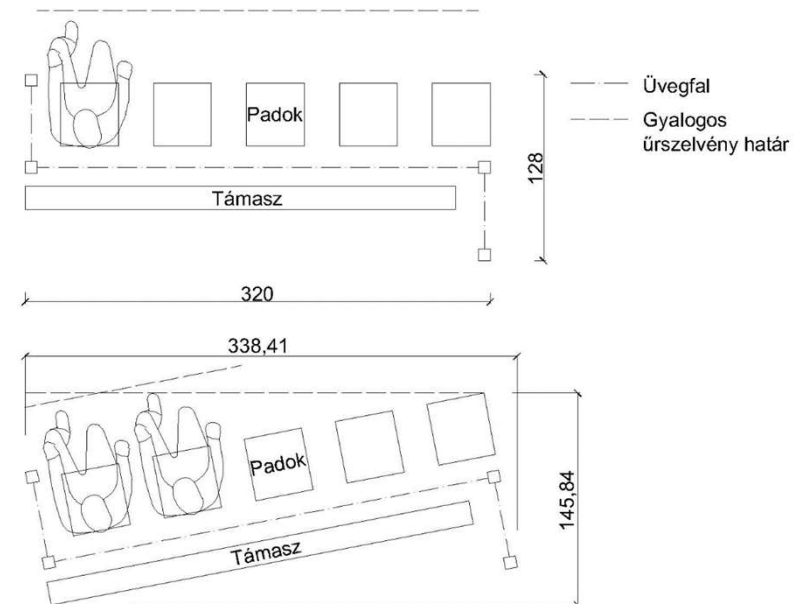


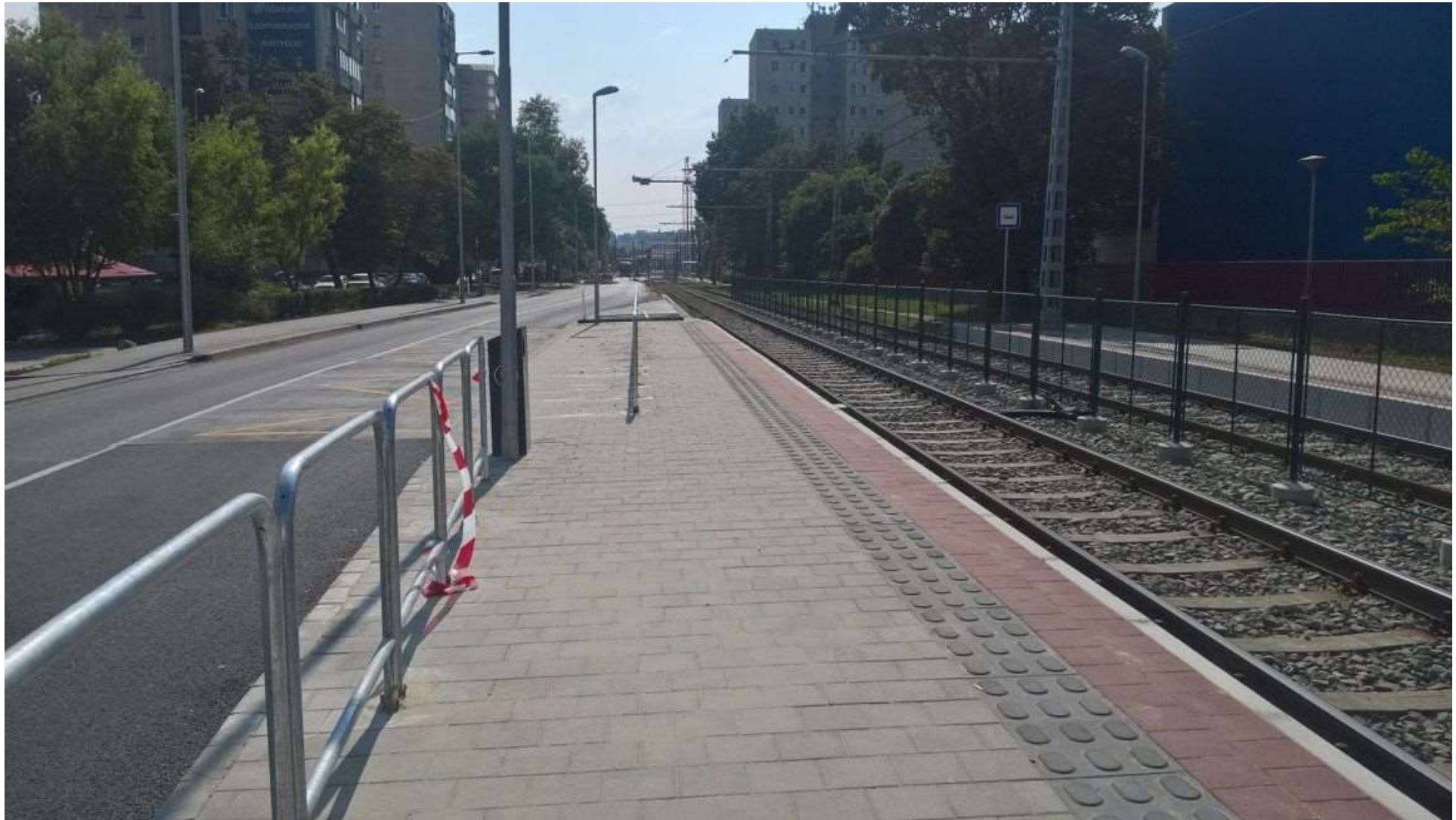
CLP – CITY LIGHT POSTER



Some other aspects:

- Shelters
- Position of obstacles
- Safety zones
- Pedestrian crossings
- Behavior of passengers waiting
- >>>>
- Several suggestions were made about taking into account clearances

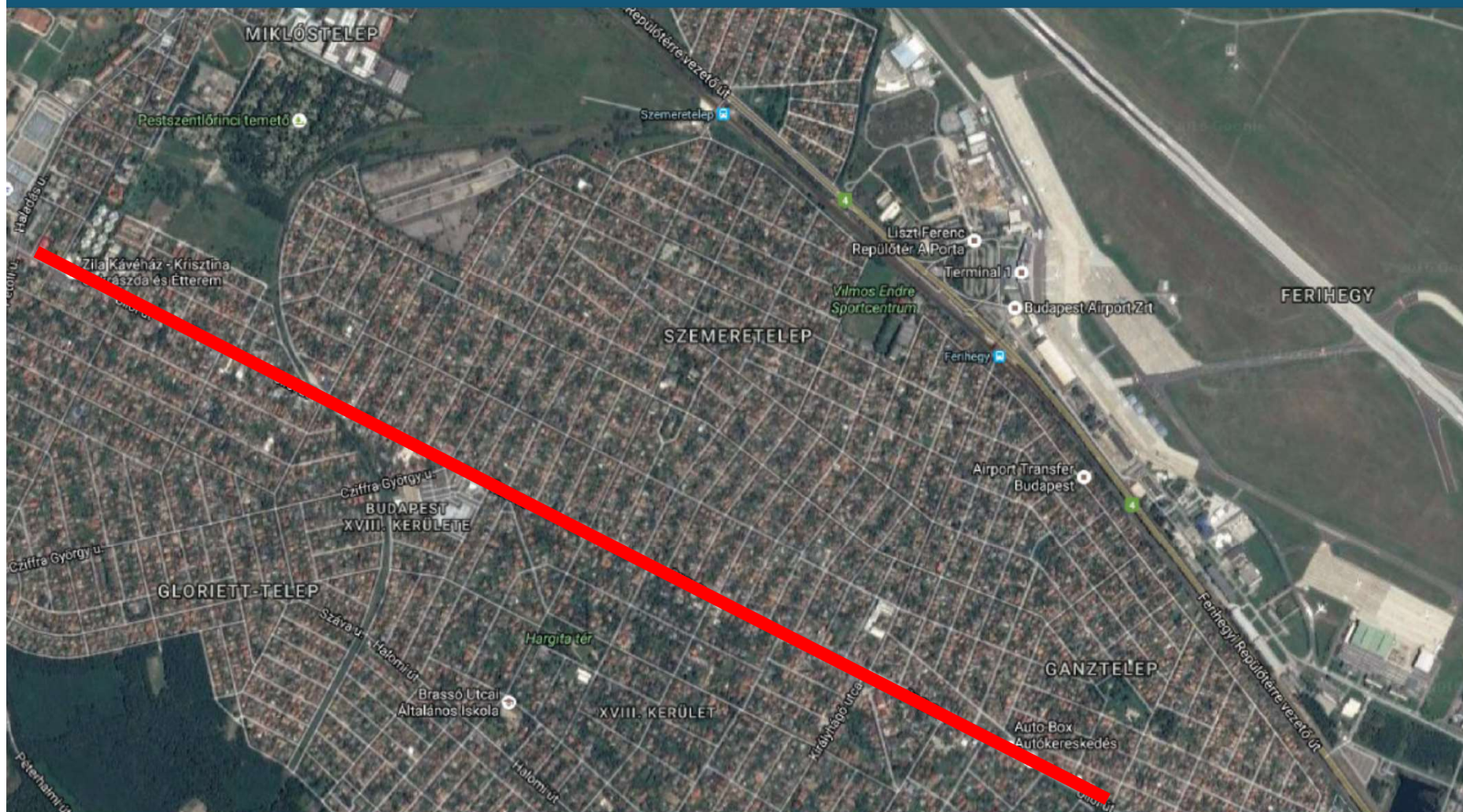




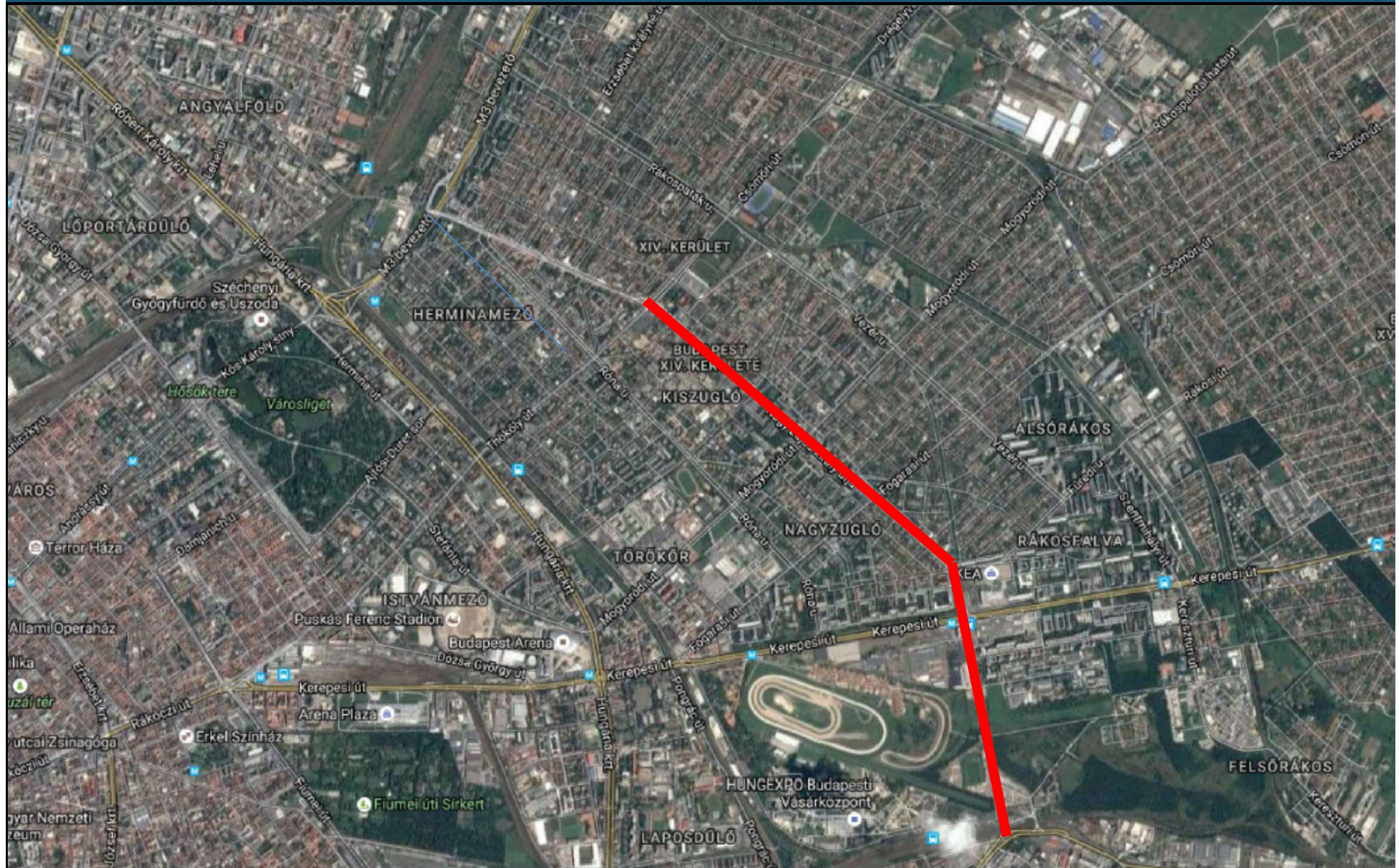
ACCIDENTS

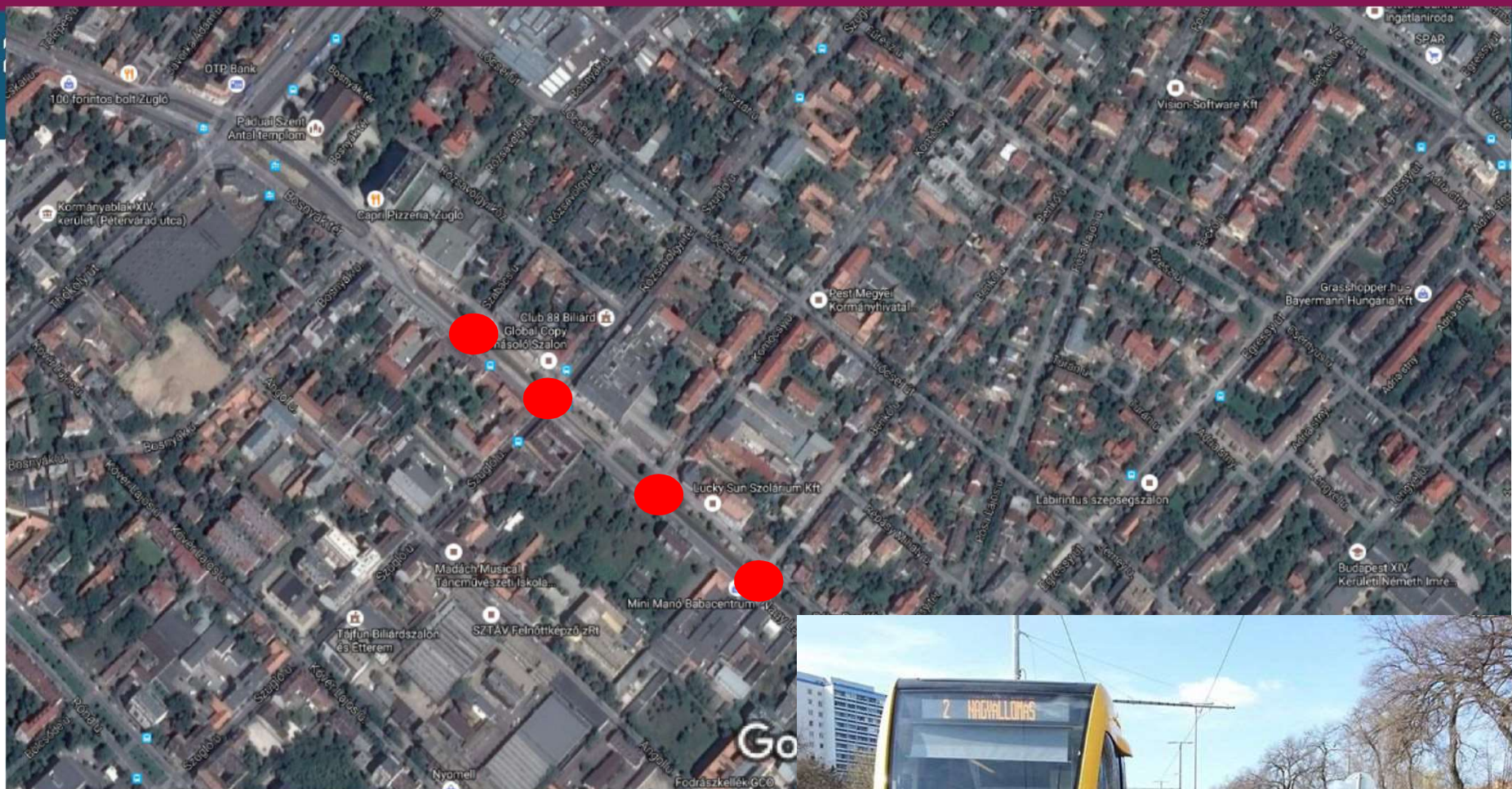
















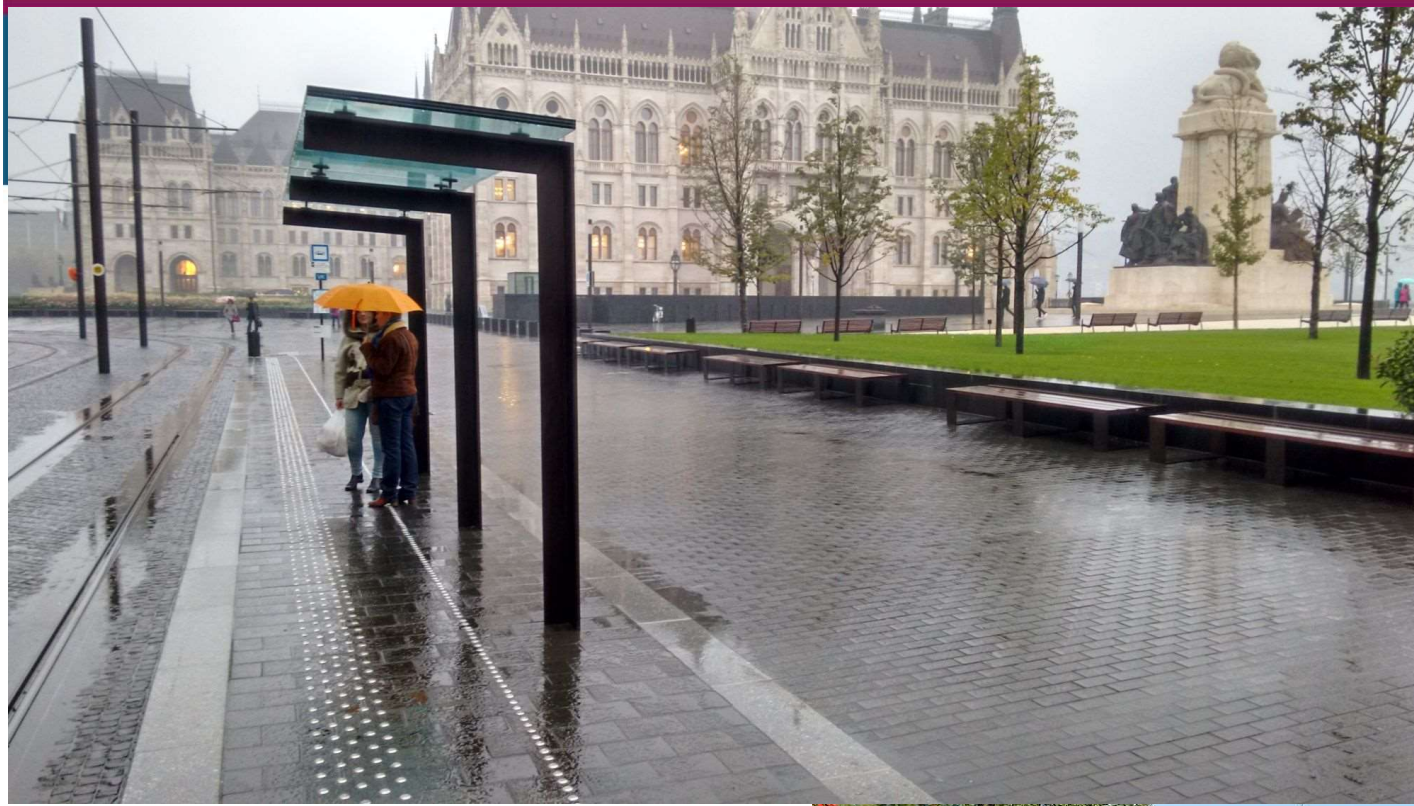






DEVELOPMENTS









37 db új, alacsonypadlós villamos érkezik Budapestre 2015-2016-ban











SZÉLL KÁLMÁN SQUARE
CONSTRUCTION VIDEO



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Thank you for your attention !