

# Safety Culture in the Middle East

David George



*Emirate of Abu Dhabi*

Department of Municipal Affairs  
Al Ain City Municipality



إمارة أبوظبي

دائرة الشؤون البلدية  
بلدية مدينة العين







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22°24'55.80" N 51°41'00.27" E elev 104 m

Google earth

Eye alt 3784.43 km

# Living in the Middle East

- Do NOT believe the western media.
- Different areas have differing laws and customs.
- Generally high levels of safety and low levels of crime.
- Yes you can get Heinz baked beans out there!





# Road Safety Audit

- Road safety audit gaining momentum.
- Many adhere to HD19/03.
- Local standards coming online mostly based on HD19/03.
  - Increased RSE/CIP experience requirements.
  - Highway design experience requirements.
  - Local experience.

# Road Safety Audit - Standards

- 10-days formal training.
- CIP/RSE Experience (5yrs TL, 2yrs TM, 1yr Ob)
- 2 days CPD
- 5 audits
- Highway design experience



Emirate of Abu Dhabi  
Road Safety Audit  
Manual

2012

A comprehensive procedure to be followed for the preparation of Road Safety Audit through all stages of design and implementation of Municipal roads and Highways projects.

# Road Safety Auditors



# The Roads





# The Roads



# The Roads



# The Roads





# The Roads



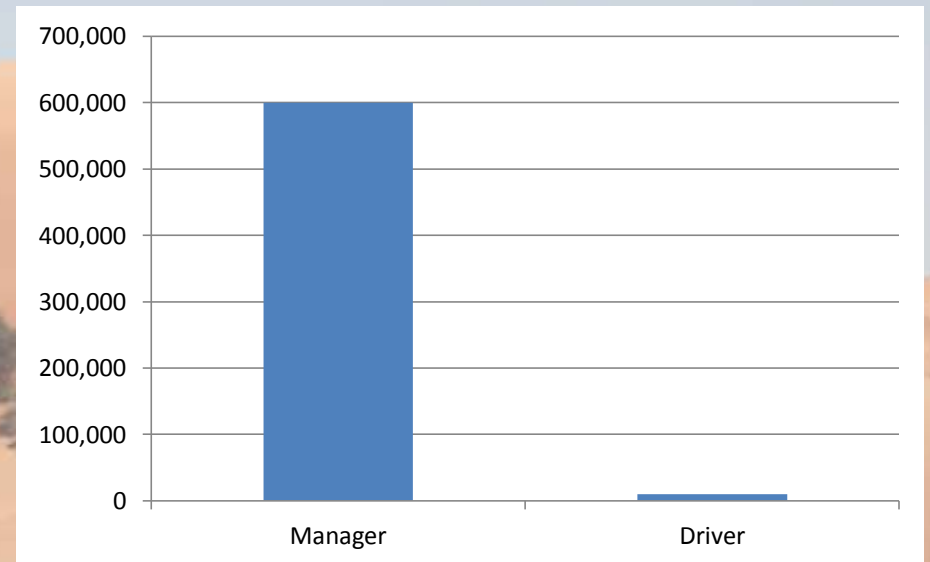
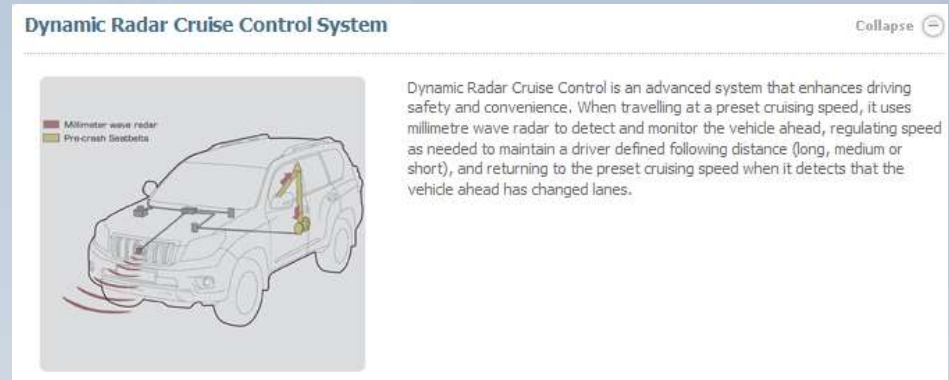


# Local Driver Experience

- UAE has over 200 different nationalities.
- Over 75% of the population are expats.
- Majority (60%) are from Indian Sub-Continent.
- A large range of driving styles.

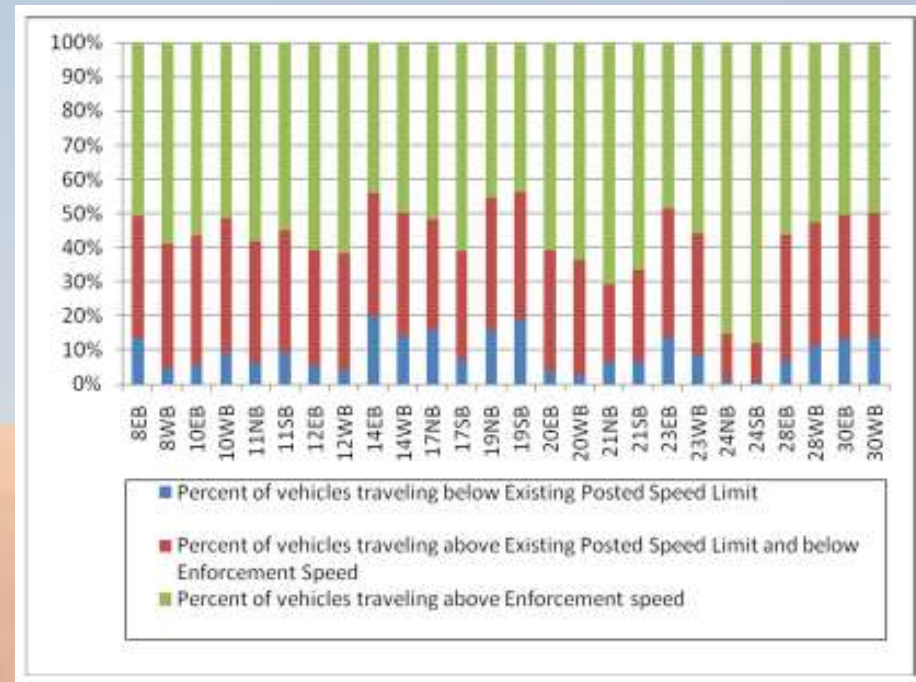
# The Problems - Drivers

- Drivers from all around the world!
- Range of vehicles from hi-tech to old bangers.
- Range of respect for law.
- Wealth disparity massive.



# The Problems - Speed

- Many drivers travel fast.
- Enforcement is mostly by camera.
- Enforcement thresholds well known by the public and is regularly quote by the police.
- Creates a two-tier speed limit – Posted and Enforced.







تنبيه  
ATTENTION

140 80

سرعة ضبط  
الرادار

KM  
5  
6  
MAXIMUM  
SPEED LIMIT

١٢٠  
120

٨٠  
80

الطنج ٧ كم  
دبي ٧٥ كم  
Al Fujairah 75 Km  
Dubai 210 Km

# The Problems - Pedestrians

- Many roads are 3x3 dual carriageway.
- 60kph posted limit = 80kph effective limit (50mph).
- How do pedestrians cross?



# The Problems - Pedestrians

- In the summer temperatures can hit 50°C and over.
- During the Holy Month of Ramadan the faithful do not eat or drink during day light.
- Pedestrian desire-lines are strong.





سوق التعاون  
OPERATIVE  
MARKET



مخابز التعاون الخليجي  
GULF CO-OPERATIVE BAKERIES





# The Problems - Animals

- Camels are a problem.
- Camels are not dumb!
- Tarmac is easier than sand to walk on!
- RSA needs to take into account camels!
- Signing and 'access control'.





# The Problems - Animals



# The Problems - Guardrailing

- No testing undertaken.
- No weight limit legislation.
- Non-standard section lengths.
- Fast repairs.
- High impact angle.
- Regular impacts!





# The Problems - Guardrailing



# The Problems - Guardrailing



# The Problems - Guardrailing





# The Problems - Guardrailing





# The Problems - Guardrailing



# The Problems - Guardrailing



# The Problems - Guardrailing





# The Problems - Kerbing





# Problems - Kerbing



# The Problems - Passengers

- Workers in back of trucks.
- Livestock in small vehicles.
- Children in cars.



# Example Crash

- Driver was heading southbound towards city.
- Approaches roundabout.
- Fails to take roundabout.

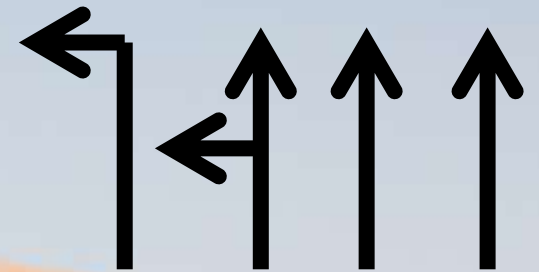


# Example Crash

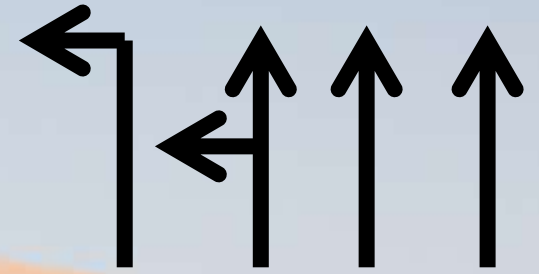
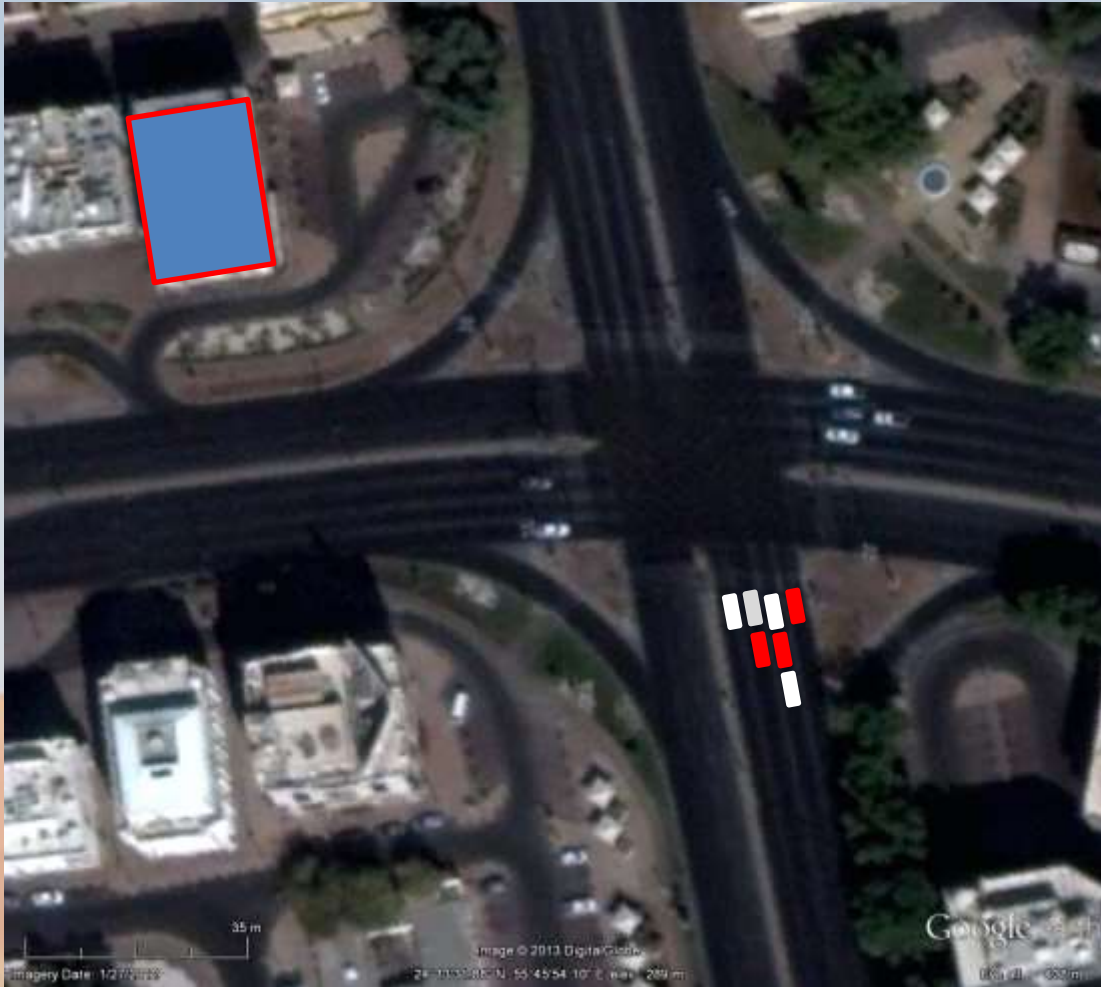




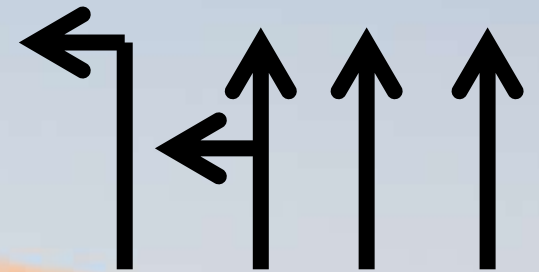
# Lane Choice



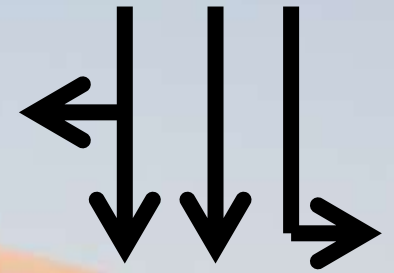
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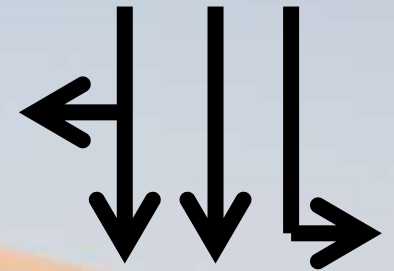


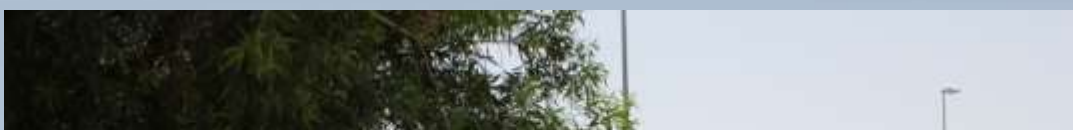
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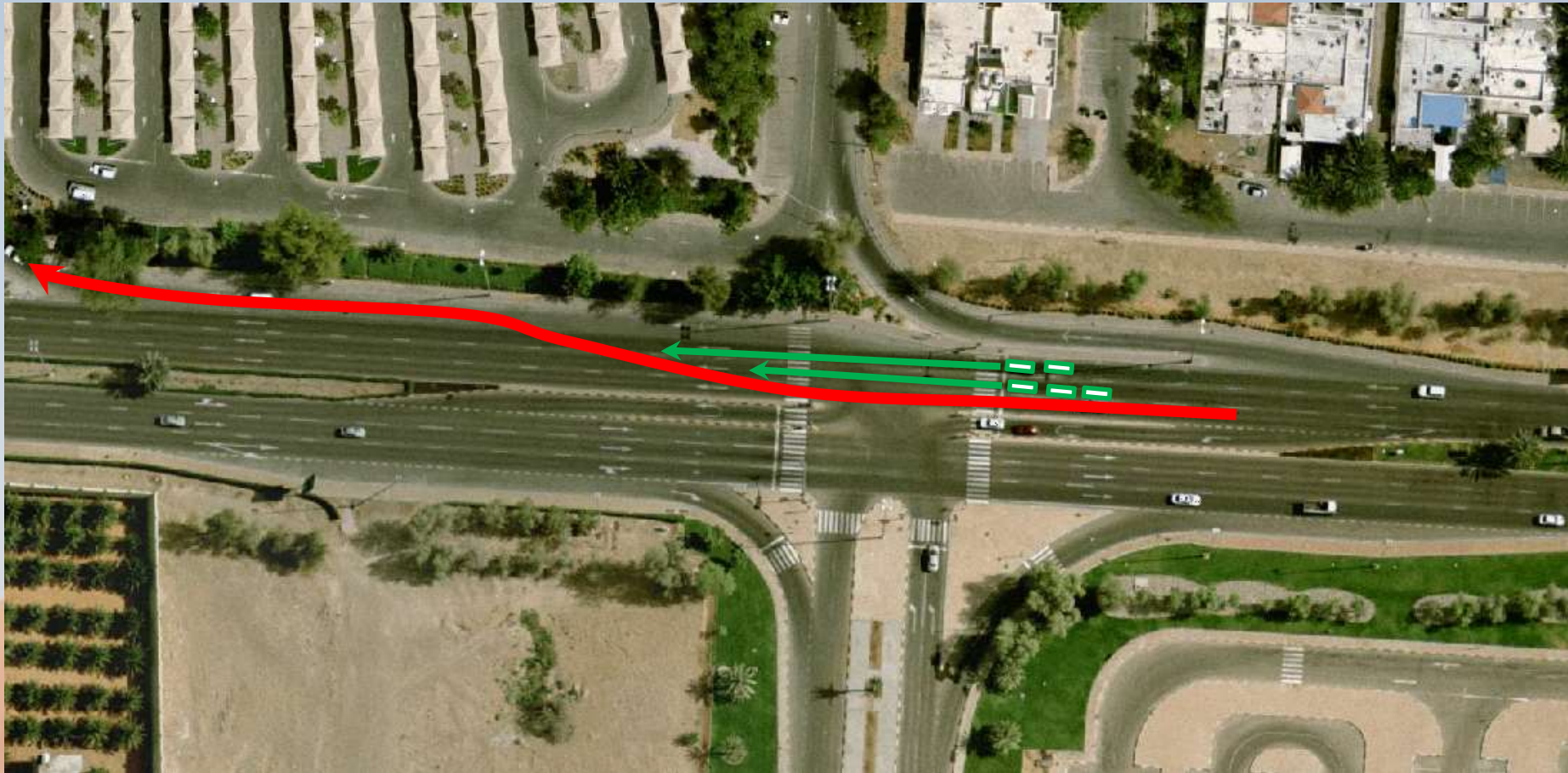
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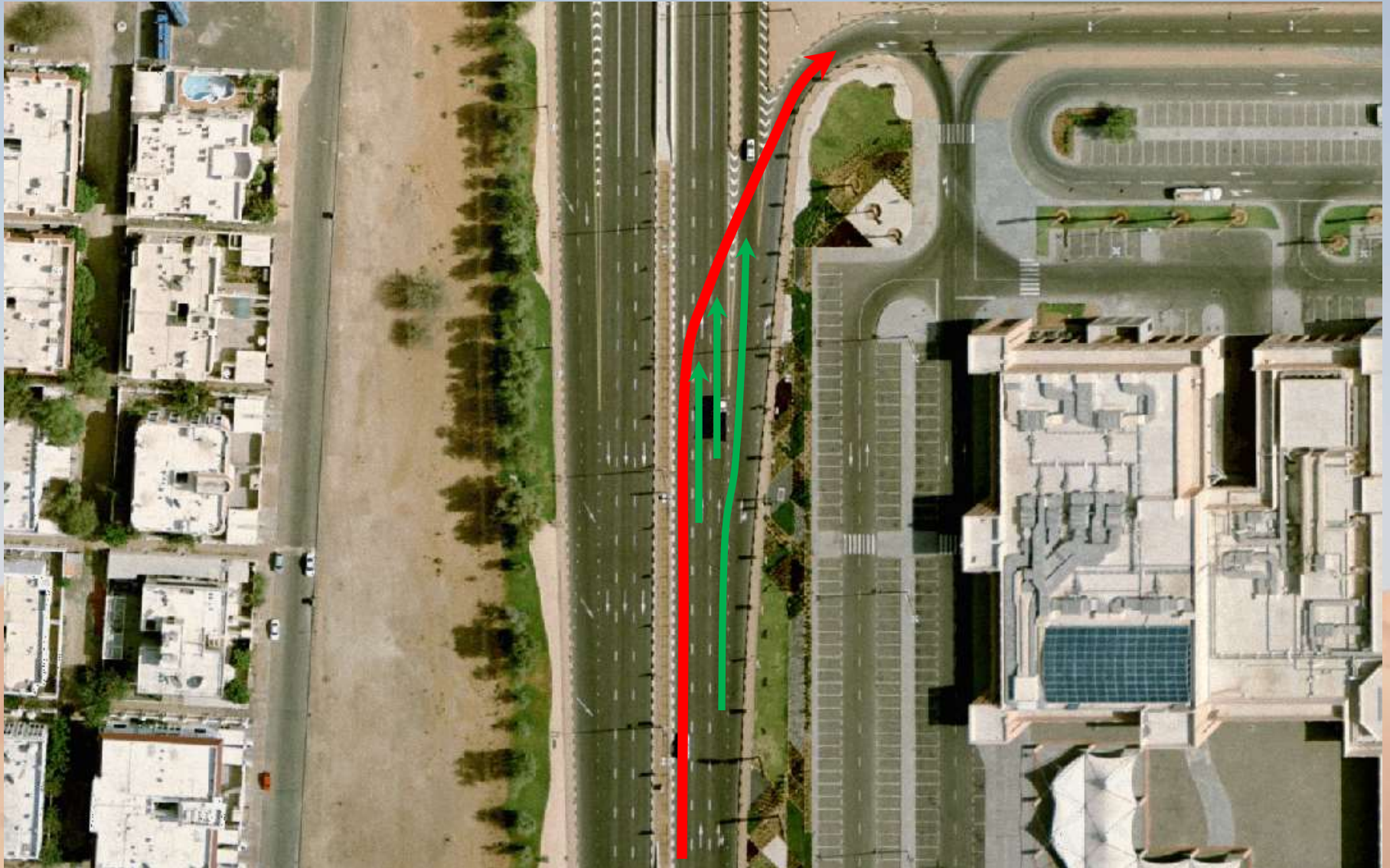


# Lane Choice





# Lane Choice







# Route Choice





# Route Choice



# Traffic Signals





# Queuing



# Temporary Traffic Management

- 100kph effective speed limit (62mph).
- Three lane dual carriageway.
- Heavy traffic.
- Mobile lane closure for gardening?
- Do not worry, as we have the.....



# The Cone of Protection!



# Summary

- Driver behaviour very different to UK.
- Risk vs Reward
- Special care needed to highlight engineering issues early e.g. safety fence.
- Enforcement not always an option.
- Strength of pedestrian desire lines is very strong.

Problem areas to consider:-

- Speed.
- Lane Choice.
- Desire lines inc drivers.
- Short-cuts.
- Camels.
- Lane changing/swerving.
- Red light running.



# Thank You / Sukran

[David.george@am.ae](mailto:David.george@am.ae)

[David.george@hyderconsulting.com](mailto:David.george@hyderconsulting.com)

