

TRAFFIC MANAGEMENT for CLEAN GROWTH

UNDER CONSTRUCTION

CAR FREE CITIES



Technologies for meeting Clean Growth
emissions reduction targets.

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1.1 INTRODUCTION

INTRODUCTION

Back in 1995 the “Open University and BBC Learning Zone” produced a TV program on **calculating volume**.

A Maths Question Was Asked;-

Based on the volume of the ice mass at the North Pole and South Pole...

- **What would be the rise in sea level if the ice melted...**

The Answer:-

- **The ice floats on the Arctic Ocean. If it melted - only the weather would be affected...**
 - **If the ice covering Antarctica melted, the sea level would rise about 60 meters (200 feet)...**
-

TRAFFIC MANAGEMENT CAR FREE CLEAN AIR ZONE

A Report: Traffic Management can deliver a car free clean air zone.

We all know now that Climate Change is an issue, this report illustrates a few things to think about in order to reduce Pollution and Congestion...

ABOUT THE AUTHOR

The Managing Director of an **Industrial Engineering Consultancy**

- In the mid 1980s founded a company in **LEAN Manufacturing and Process Improvement**
- Now been working in manufacturing for over 30 years and in 60 cross-sector companies

A Designer of Factories, Process Improvement and Company Turnaround.

- Working predominantly in the UK, also Czech Republic, France, Netherlands, Ireland, Canada
- **During the last 15 years saving and generating for companies around £12 Million...**

I Drive 20,000 to 25,000 miles per year;

- On motorways, A and B roads around towns, cities, country lanes and industrial estates.
- Working up and down the country:- Cumbria, Essex, Wales, The Midlands, Devon, Yorkshire.

During the period August 2018 – January 2019 I worked in the **Netherland's, Arnhem**.

- Project **Company Turnaround** - Process Improvements and **Cost Savings circa £2,000,000**

My Job Is To Help People In Business - Improve Their Business... A Trouble-Shooter...

WHY WE NEED TO “CHANGE”

- Google - worldometer - “real time world statistics”.
- Google - the impact of sea level rise UK (images)
- Google - car free cities UK (images)

1.2 CLIMATE CHANGE

THE PROBLEM

We can see air pollution hanging over our towns, we can even smell the air pollution.

Causes Of Pollution

Industry - Manufacturing

Log Burners - Power Generation

Office Buildings - Household Boilers

Vehicles - Planes - Ships etc.

- But people “only talk about the problems of vehicle pollution”...
 - PEOPLE DON'T TALK ABOUT A SOLUTION or HOW TO IMPLEMENT A SOLUTION..
-

SO: WHAT DO WE DO ABOUT IT, NOW...

- Option 1 – Do nothing, and hope it will go away
- Option 2 – Talk about it, and hope it will go away
- Option 3 – Talk about it, and hope someone else will do something about it
- Option 4 – Talk about it, Talk to other people, AND DO SOMETHING ABOUT IT...

SO: OPTION 4...

- What are we going to do about it - And “LETS THINK OUTSIDE THE BOX”

“ROOT CAUSE”

Congestion



“EFFECT”

(The World Under Water)



AIR QUALITY CONGESTION THE PROBLEM



CARS ARE GETTING BIGGER

2.1 THE PROBLEM - TRAFFIC MANAGEMENT

CONGESTION and AIR POLLUTION

This is Manchester - But it could be LONDON, Bolton, Hindley or any town...

As you walk around the streets, you can see the problems:- CONGESTION

- Street Parking - causes much of the congestion...
- Too much traffic - causes the pollution and congestion...
- Narrow Roads - at junctions and traffic lights causes congestion...

This was:- Tuesday 2nd July 2019 12:00



Spring Gardens



King Street



John Dalton Street

The Bus is stopped because of congestion...

- The streets are congested because of
- car drivers looking for somewhere to park
 - car drivers trying to get through the city...
 - junctions only wide enough for one car...



John Dalton Street

2.2 THE PROBLEM - TRAFFIC MANAGEMENT

CONGESTION and CONGESTION CHARGES

*"Drivers of the most polluting vehicles could face **Congestion Charges** in Greater Manchester under a proposal to introduce a "clean air zone" announced by the mayor, Andy Burnham".*

FUTURE PROBLEM

**ELECTRIC CARS may not cause pollution -
"BUT WILL STILL CAUSE CONGESTION"**



POLLUTION and CONGESTION

Pollution is caused by too many cars in the city...

Congestion is caused by too many cars in the city...

Too many car drivers –

Drive round and round the streets looking for that "one parking space"

- Which will then cause congestion
- Which will then cause pollution...

SOLUTION - JUST AN IDEA

If we **REMOVE** the parked cars from the streets :-

- ✓ We remove the traffic
- ✓ We remove the congestion
- ✓ We remove the pollution...

COMMENT

The **CONGESTION CHARGE** will only remove diesel vehicles from the city centre...

Large **ELECTRIC CARS & SUVs** will still cause congestion...

2.3 THE PROBLEM - FUTURE ROAD CONGESTION

PRESENT PROBLEM - TRAFFIC

- CARS ARE GETTING BIGGER...
- Pollution IS getting worse...
- Congestion IS getting worse...



FUTURE PROBLEM

**ELECTRIC CARS may not cause pollution -
"BUT WILL STILL CAUSE CONGESTION"**



CLIMATE CHANGE is NOT about Congestion - IT'S ABOUT POLLUTION...

BUT CARS ARE GETTING BIGGER



SOLUTION

**"A CAR FREE CITY"
Is the real solution to congestion and pollution...**

THE SOLUTION

And The

“CAR FREE TOWN”

pontevedra car free streets
<https://www.citylab.com>
<https://www.theguardian>

PONTEVEDRA SPAIN

2019 – CAR FREE CITY

“In Pontevedra Spain - IS NOW A CAR FREE CITY -

- **Car use in the inner city has dropped by 77 percent**
- **CO2 emissions have dropped by 66 percent, according to the city council...**

Cars are not strictly banned inside the city.

- Residents with a private garage can bring their cars in, -
- Traffic is open to delivery services - emergencies - cyclists -
- Private drivers who need to stop by the centre for a pick-up or drop-off.

3.1 ARNHEM NETHERLANDS - A CAR FREE CITY

THE SOLUTION in ARNHEM

THESE ARE VIEWS OF STREETS IN ARNHEM the NETHERLANDS (Early morning 2019)

- **A CAR FREE CITY** - The centre of the town is pedestrianised “A”
 - Traffic uses the “**Ring Road**” and “**Lanes for Cyclists**” “B”
 - People eat out in the streets, and shop around town safely “C”
- Only deliveries, residents, disabled, cyclists and pedestrians use the streets.
- The atmosphere is so much cleaner...



Shopping In A Clean City



Eating Out In A Clean City



Cycle Way

3.2 SOLUTION - CAR FREE CLEAN AIR ZONE

PRESENT PROBLEM - CONGESTION AND POLLUTION

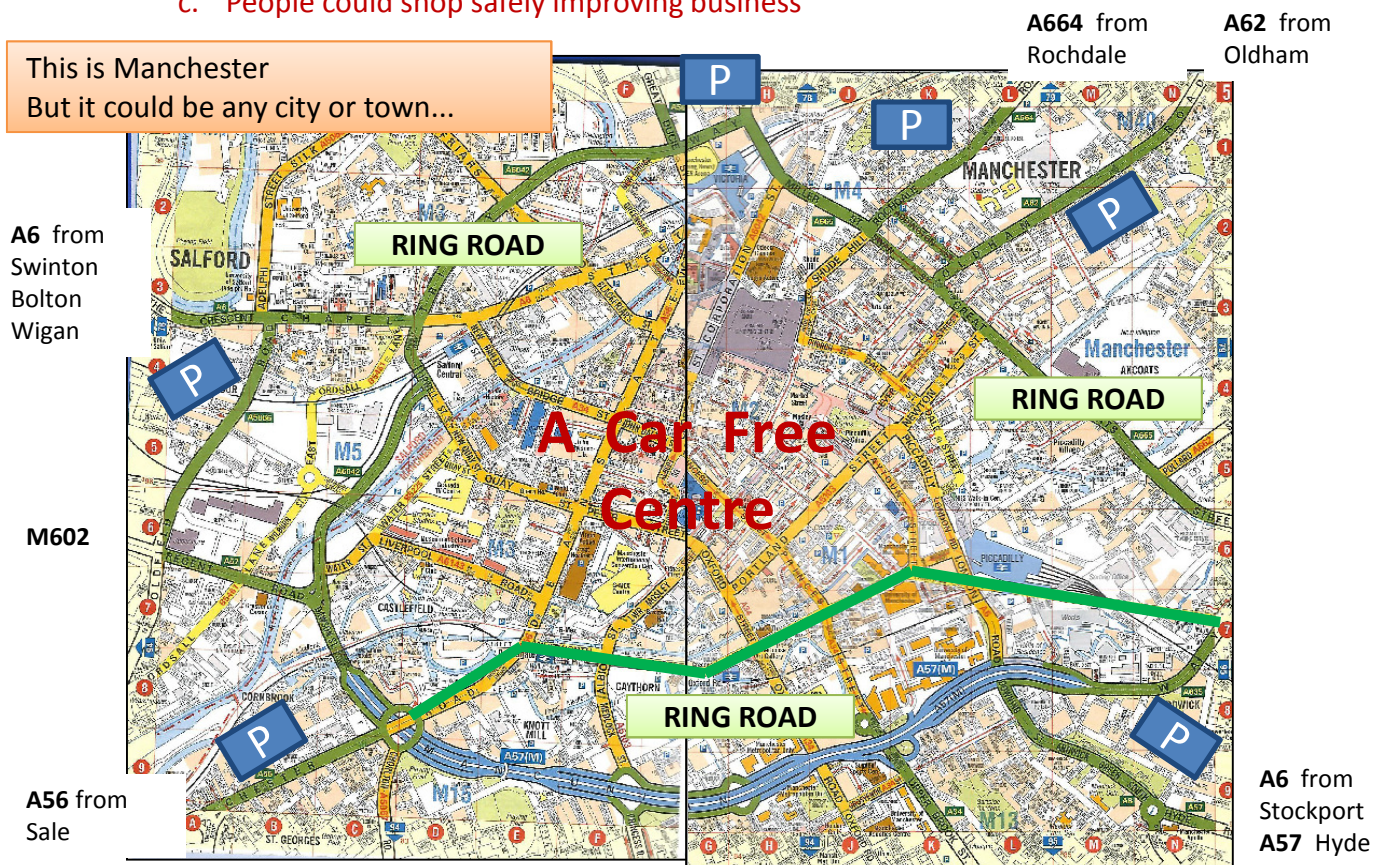
THIS IS MANCHESTER - the street map. (BUT IT COULD BE YOUR TOWN)

- Traffic goes one way - then another - up and down the one way streets
- Motorists go “round and round” in circles looking for a parking space
- Cars “parked on one or both sides of the street” IS causing congestion
 - Busses are stopped as they can’t get through the streets of parked cars
 - Vans can’t make deliveries because of “cars parking on the streets”

THINGS TO THINK ABOUT:- CAR FREE CITY CENTRE ZONES

1. **PHASE OUT STREET PARKING** - to eliminate congestion and pollution
2. **CREATE “PEDESTRIAN FRIENDLY AREAS”** - to eliminate cars and pollution
3. **CREATE “OUT OF CITY PARKING”** - just outside the centre at £3.00 per day
£2.00 Sat/Sun

- ✓ Only: Deliveries, residents, disabled, cyclists, pedestrians **could use the streets**
- ✓ Traffic could use the “Ring Road” and “park off the ring road”
 - a. Busses, trams, cyclists could move through the streets safely
 - b. People could eat out in the streets improving business
 - c. People could shop safely improving business



3.3 SOLUTION - PEDESTRIANISE CITY STREETS

THINGS TO THINK ABOUT:-

FIRST:- “WALK THE CITY - LOOK AT HOW THE CITY WORKS”...

- *Look at all the parked cars congesting and strangling the cities trade*
 - *Look at the opportunity for change - we need to re-claim the city for business*
- 1. CLOSING OFF ROADS WOULD COST NOTHING to Reduce Congestion And Pollution**
 - 2. INTRODUCE SIMPLE ROAD SIGNS**



This Could Be Pedestrianised
This Could Have Disabled Parking Only



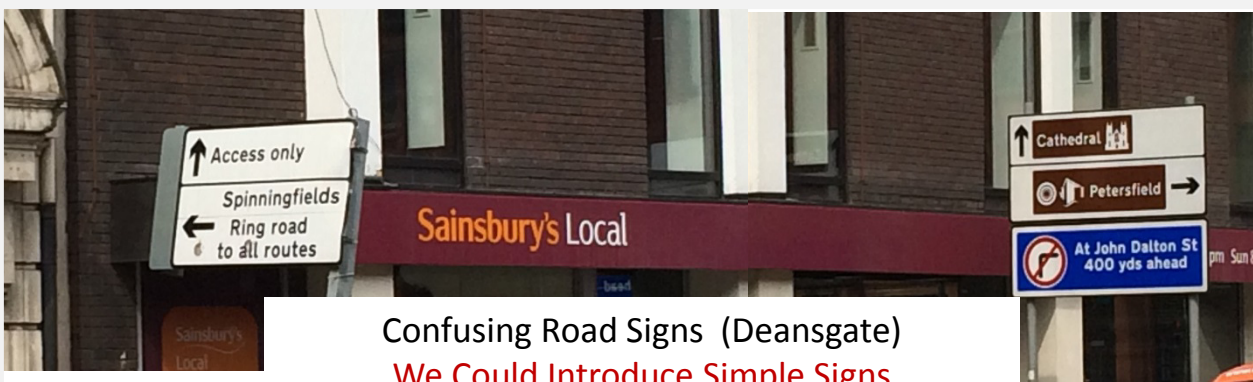
This Could Be Pedestrianised
Cycle Routes, Bus Routes, etc...



This Could Be Pedestrianised
An Inner City Cycle Way



This Is King Street
IT IS Pedestrianised



Confusing Road Signs (Deansgate)
We Could Introduce Simple Signs

3.4 SOLUTION - PARK AND RIDE

PRESENT PROBLEM - CITY CENTRE PARKING

This is MANCHESTER city centre NCP car park charges.

Welcome to Spinningfield's Car Park - 2019

Up to 1 hour	£3.00
Up to 2 hours	£7.50
Up to 3 hours	£12.00
Up to 5 hours	£18.00
Up to 24 hours	£28.00



These charges are "OBSCENE"... Office workers do 4 - 9 hours

SOLUTION - JUST AN IDEA

1. "PARK AND RIDE" - Out of Town "A"

FREE PARKING

2. "OUT OF CITY PARKING" Ring Road - Up to 4 hrs

FREE PARKING

£3.00 per day

£2.00 Sat/Sun.....

3. Small Town Parking

Up to 4 hrs

FREE PARKING

£3.00 per day

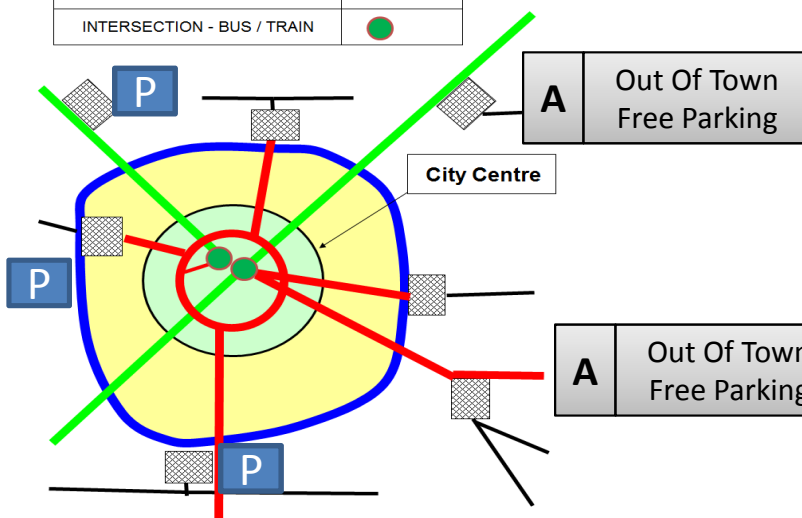
Sat-Sun

FREE PARKING



CAR FREE CITY

METRO CAR PARK	
"A" ROADS	
RING ROAD "Outer"	
BUS ROUTE / Inner Ring Road	
TRAIN - TRAM	
INTERSECTION - BUS / TRAIN	



4.0 ACTION PLAN - WE CAN RECLAIM CITIES

THINGS TO THINK ABOUT:-

In **Pontevedra** they found almost **60 percent** of vehicles circulating inside town were actually going around in circles trying to find a parking spot. Causing congestion and pollution...

I don't have all the answers. But we can do something...

SO WHAT ARE WE GOING TO DO ABOUT IT ?

Are we going to wait till we "can't breath" to do something...

1. FIRST:- "WALK THE CITY - LOOK AT HOW THE CITY WORKS"...
2. City Centre Street Parking - causes much of the congestion...
3. Too much traffic - causes the pollution and congestion...

Are we the "Last Generation To Do Nothing"

Or are we the generation to do something...

To create clean growth and a clean Earth for our children's children...

CONTINUOUS IMPROVEMENT - THE ACTION PLAN

1. PHASE OUT STREET PARKING - to eliminate congestion - Cost Nothing
2. CREATE NEW CYCLE LANES - By Phasing out street parking - Cost Little
3. CREATE "PEDESTRIAN FRIENDLY AREAS" - to eliminate cars - Cost Little
4. CREATE "OUT OF CITY PARKING" - at £3.00 per day £2.00 Sat/Sun - City Income Stream
5. CLOSING OFF ROADS - WOULD COST NOTHING
6. IMPROVE ROAD SIGNS - SIMPLE and CONSISTANT
7. PARK AND RIDE - Out of Town FREE PARKING
8. OUT OF CITY PARKING - Ring Road FREE PARKING Upto 4 hrs - Then £3.00 / Day
9. Small Town Parking FREE PARKING Upto 4 hrs - Then £3.00 / Day
10. BUS LANES - Should be sensibly positioned "Fit For Purpose"
11. BUS STOPS - Should be positioned In The Bus Lane
12. BUS LANE SIGNS - Should be "SIMPLE AND CONSISTENT"
13. Build "PARK AND RIDE" - with FREE Off Road Parking
14. BUILD TRANSPORT SERVICES THAT JOIN UP – Road / Rail / Bus / Bike
15. BUILD NEW RING ROADS – Not roads that go round and round the streets...
16. BUILD NEW ROAD JUNCTIONS THAT ARE WIDE – Not to cause congestion