Intelligent Integration

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The context

- A project which is developing a new format for urban bus operation
- Providing politicians with an economic alternative to light rail
- Car congestion is rising – modal shift to public transport is needed
- Existing and potential customers need to be offered a more desirable public travel experience

A realistic alternative to the car

Perceptions of the Bus

- Public resistance to the bus – from people with perceptions of the past
- Aspirations to own a car
- Towns and cities are reaching bursting point
- Commuting by car has become one of the most stressful daily events
- But still resistance to giving up road space for buses
- Nothing but a radical solution will deliver

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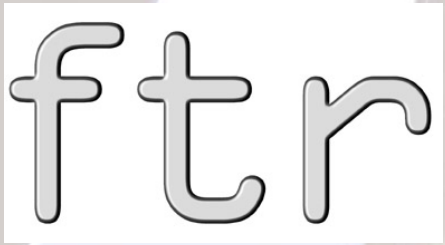
The concept

- The whole concept is called:



- Shorthand for ‘Future’
- A hybrid mode – somewhere between bus and tram
- Will become the brand identity for our premium urban travel product
- The Project forms part of our goal to transform travel

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ftr - A hybrid mode

- **ftr** takes the best from the bus in terms of:
  - Affordability
  - Accessibility
  - Flexibility
- With the best from the tram in terms of:
  - Image
  - Dedicated Infrastructure – the 'track'
  - Perceived Reliability
- **ftr** will be operated with a new vehicle from The Wright Group called StreetCar

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The challenge

- Make public transport so irresistible, car users would travel on it for some of their journeys
- Demonstrate to LAs it is an answer to congestion
- Convince them to invest in priority measures to make it work
- Show that you don’t have to wait a generation to deliver a sea change in quality

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The solution

- A combination of:
  - Show stopping vehicle
  - Frequent, reliable, near door to door services
  - Dedicated priority measures and stop infrastructure
  - State of the art real time information
  - Fast ticketing regime
- Delivering the comfort, convenience and control of a car
- Plus other benefits the car cannot offer

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Partnership with WrightGroup

- Research how buses are used
- Design a vehicle to meet existing and potential customer needs
- Talk to customers in detail about the vehicle and the whole journey experience
- Involve engineers, cleaners, drivers and marketing teams in the design
- Result - a vehicle which is functional, fit for purpose, reliable, easy to maintain and has the WOW factor!

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The scrum at the entrance

- The need to remove the “throat” at the entrance to the vehicle
- Better cater for standees

- Parents with buggies love low floor vehicles – but how can we create more space for them?

Innovation has come from understanding current issues

ftr/StreetCar
Intelligent Integration

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Mark Nodder – Wright Group

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Key design objectives of StreetCar

- Unique appearance
- Innovative vehicle packaging & layout
- New vehicle technology
- Easy, rapid boarding and alighting
- Improved driver's environment
- Affordable throughout lifecycle

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Market Research and Feasibility Studies

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Modelling and driver consultation

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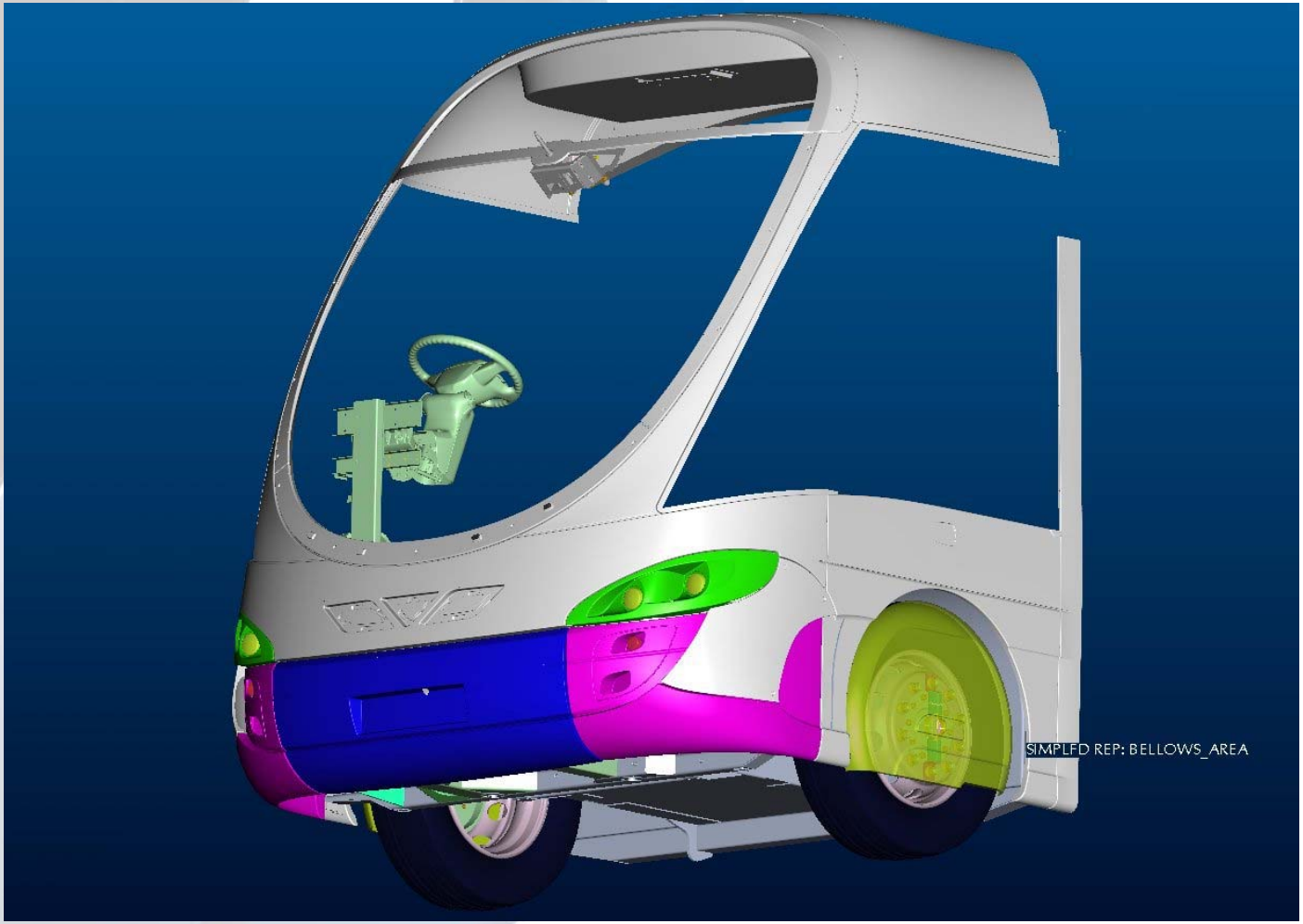
Detailed Design – front module



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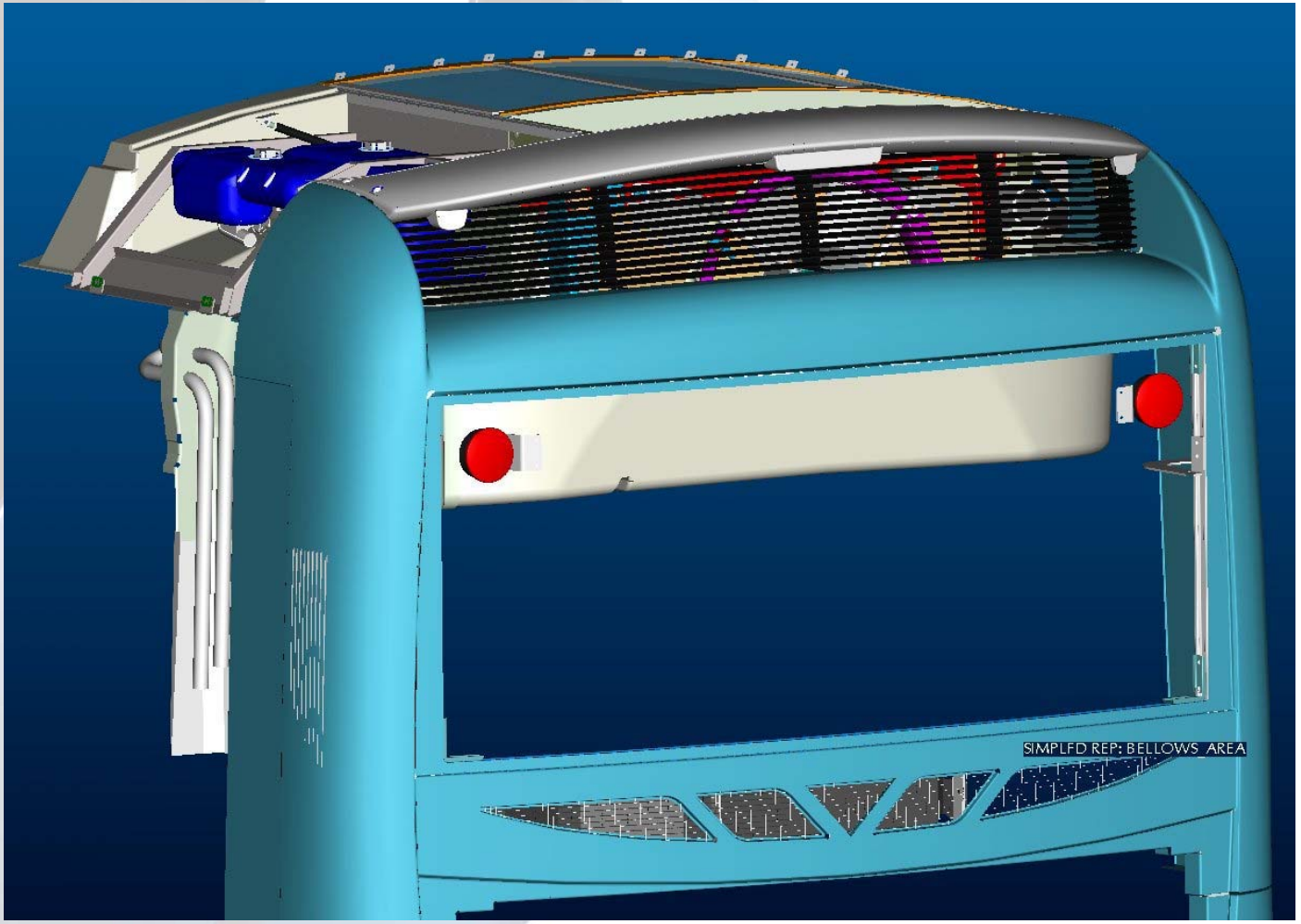
Detailed Design – rear module



Design reviews and testing

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1. Innovative Vehicle Packaging & Layout

- Driver compartment above front axle
- Main entrance driver behind front wheels
- Low floor, very accessible
- Wide aisles and space for circulation
- Natural light plus ambient lighting
- Full air conditioning

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StreetCar™

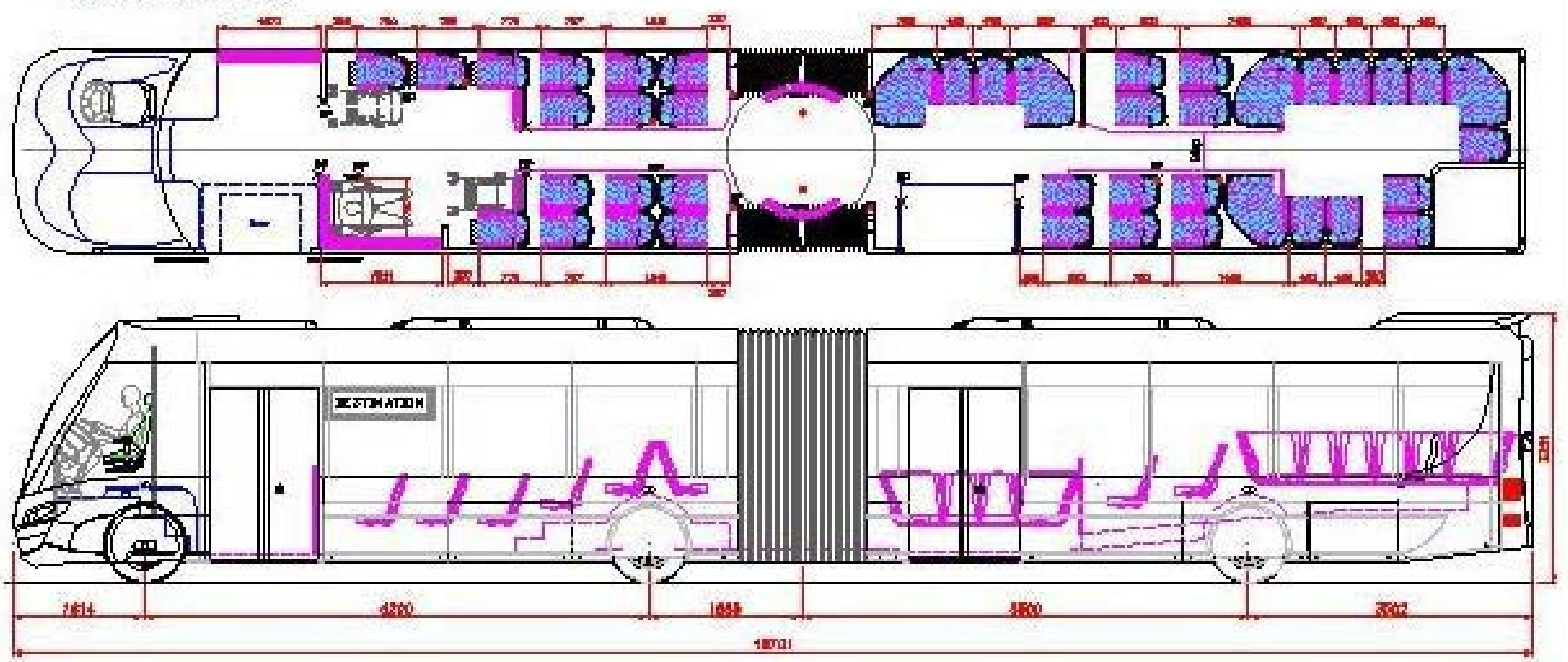
SPECIFICATION LAYOUT

VOLVO B7LA 18.6M

CUSTOMER DRAWING No. CUS-01746-4

● = Handrail

✕ = Handrail & Bell Push

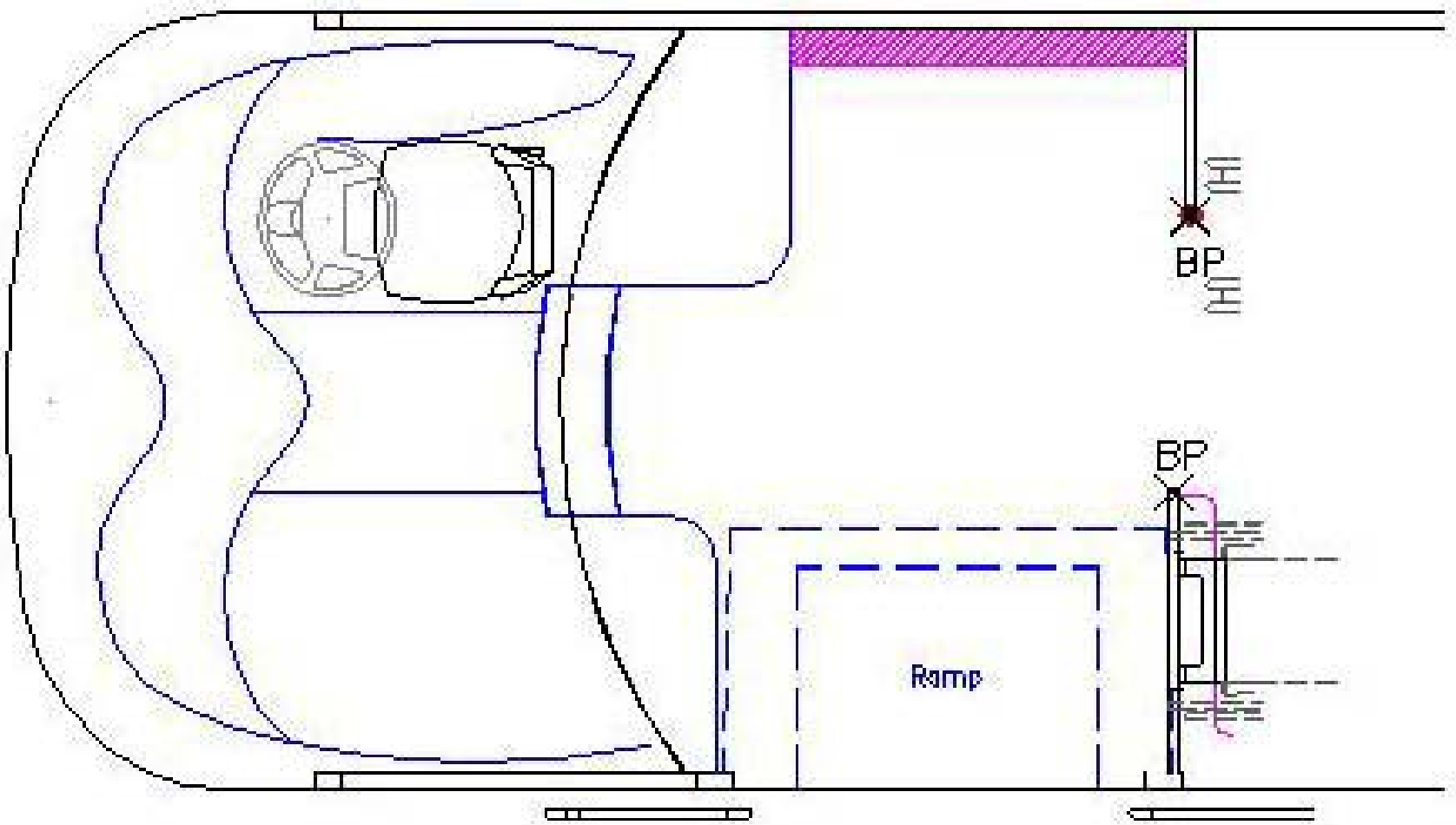


- Maximum Capacity — 126 **
- Maximum Seated — 37(42)+++
- Maximum Standees — 89 **
- Body Length — 18701mm
- Body Width — 2520mm
- Wheelbase — 6200/7385mm
- FrontOverhang — 1614mm
- RearOverhang — 3902mm
- Entrance step height — 325mm
- Entrance step kneeled — 245mm
- Aisle Width (between wheelarches) 470mm
- Aisle Width (between seats) — 540mm
- Seat Type — Politechnica Arco

● This Version Drawn By / Date — S.McC. 05.04.05

Provisional drawing
Uncontrolled document

+++ For legal reasons associated with foot space the corner seats are not included.
** Standing passenger figures are based on floor space only and are subject to axle load capacities.
–Passenger Capacities are set against Wright Bus specification and may vary depending upon customer vehicle specification.
–All above dimensions are for reference only and may vary. Seat pitches may vary depending on chosen seat type.
–Wright Bus reserve the right to alter specifications as deemed necessary due to continuous improvement initiatives.


BP
BP
Ramp

2. Enhanced Vehicle Technology

- New generation passenger ticketing
- Integration of all on-board electronics
- Real time passenger information
- Full body and chassis multiplex

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Pre-paid and on-board Ticketing

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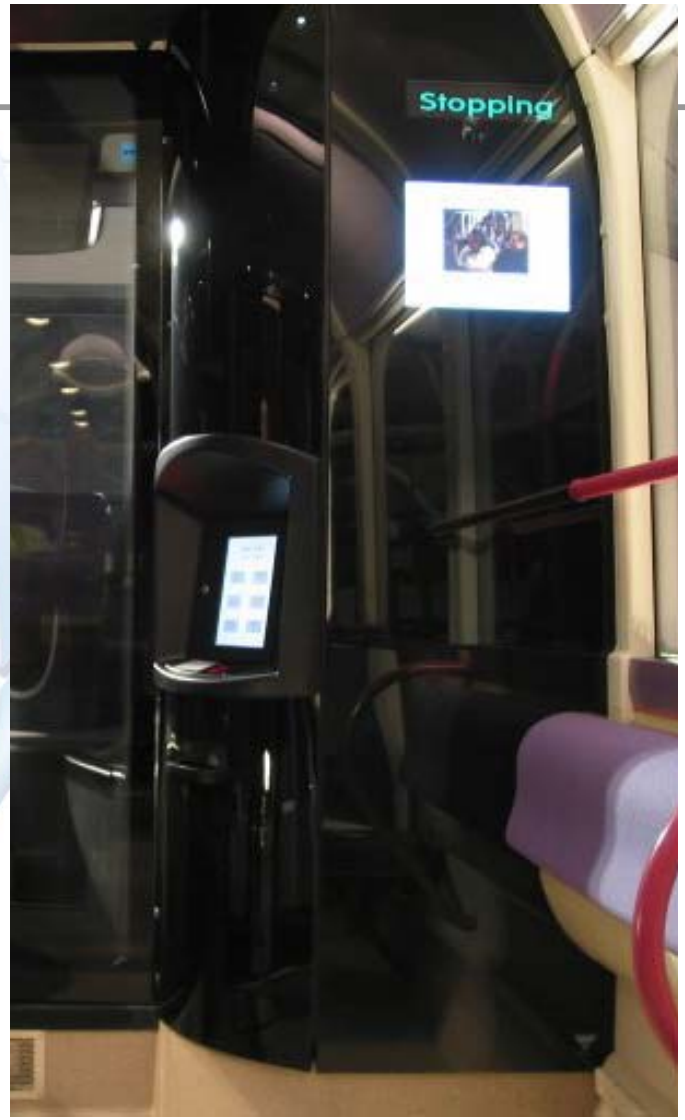
Integrated telematics



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3. Dramatic Visual Appearance

- Strong image and identity
- Curved windscreen and panoramic windows
- Integration of automotive styling themes
- Covered wheels on all axles
- Stylish, sophisticated interior

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StreetCar

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Conventional bus c/w StreetCar

Now you see it.....

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"the back end of a bus!"

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Easy boarding and wider aisles

Headlamp comparison – automotive styling

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Strip lights c/w ambient lighting and LED’s

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Variety of seating zones

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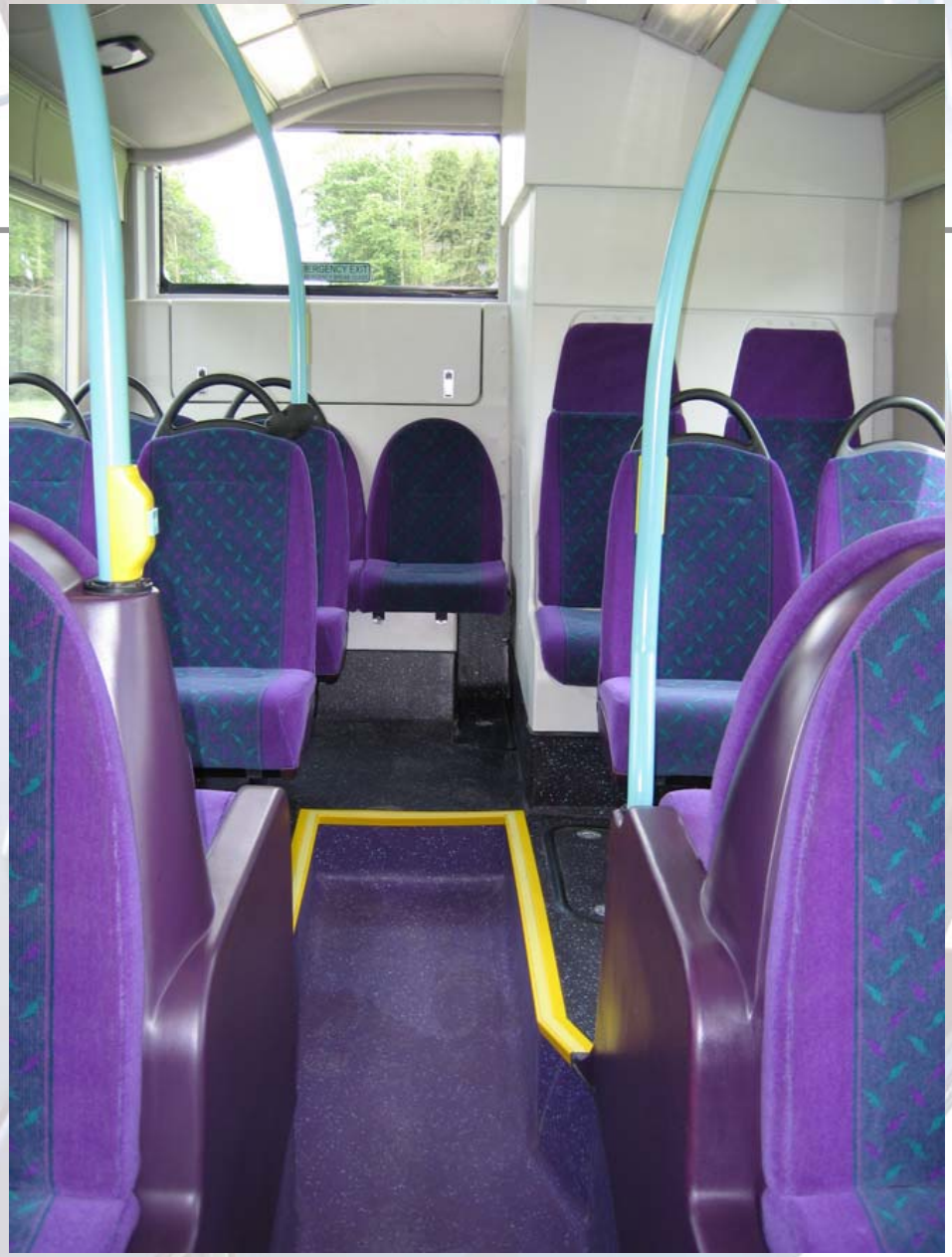

More light, more space

5. Improved Driver's Environment

- Separate spacious driver's workplace
- Dedicated climate control system
- Much lower noise levels than bus
- Elevated driving position
- Excellent all-round visibility

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Enclosed Driver's Compartment

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Driver's Workplace

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Affordable throughout lifecycle

- Design based upon proven componentry
- Technical support through nationwide network
- Refurbishment / re-branding packages
- Guidance system optional
- Hybrid electric driveline planned

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The advantages of ftr

- Infrastructure does not have to be costly – but we could be really revolutionary
- The "**ftr** track" does not have to turn town or city centres upside down in the construction phase
- **ftr** can be introduced quickly, more cheaply and without legislation
- An **ftr** corridor could provide similar capacity to light rail at less than a tenth of the cost

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Benefits

- 10% of cars off the roads
- Reduced traffic congestion
- Greater capacity on corridors into town and city centres
- Short and more assured journeys
- Better air quality
- Social inclusion benefits
- Greater support for public transport

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Countdown to delivery

- **ftr** and StreetCar had a national unveiling in Greenwich in March
- The first production vehicle has left the factory
- Technical testing in nearing completion and more customer research is on-going
- The first route will be operational in York early in 2006

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The future …..

- The future is bright
- The vehicle is StreetCar
- The whole concept is ftr

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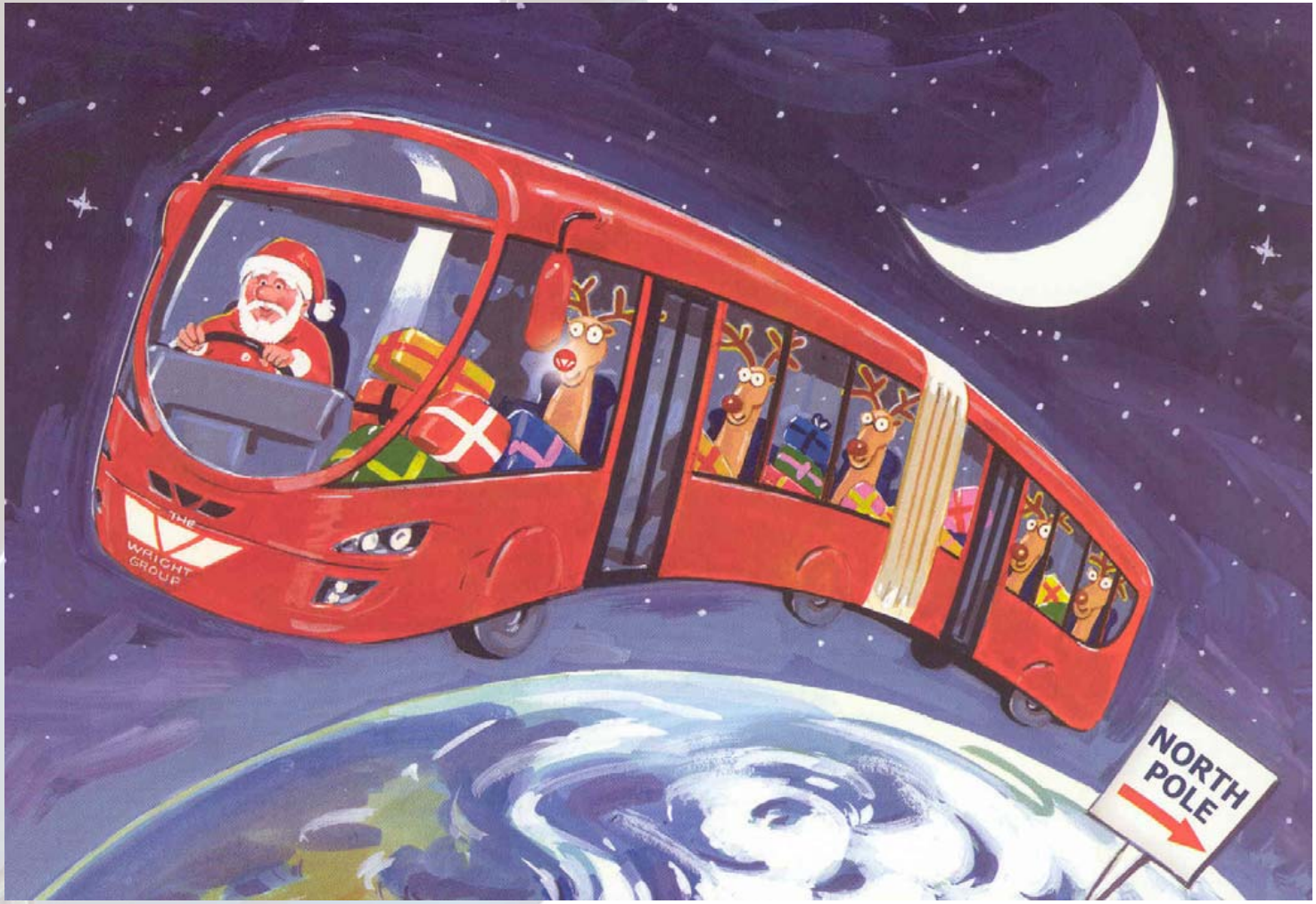
Thank you



and Merry Christmas!

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