Transportation Careers Event

Road Safety

Stuart Kay IEng FCIHT FSoRSA

Road Safety Consultant

Education

- 1988: ONC Civil Engineering
- 1991: HNC Civil Engineering

Professional Memberships

ATKINS

- 1996: Associate Member of Institution of Civil Engineers
- 2002: MCIHT
- 2008: MSoRSA
- 2015: FCIHT
- 2015: FSoRSA

(2015: relinquished AMICE, transferring Engineering Council registration to CIHT)

“Extra Curricula”

ATKINS

- CIHT NE&C Committee Member
- CIHT Observer on Council
- CIHT Membership and Skills Strategy Board Member
- CIHT Mentor and Reviewer (IEng and EngTech)
- CIHT Professional Conduct Panel Member
- SoRSA Chairman 2015-2017
- SoRSA North East Representative

My Career

ATKINS

• 1988: YTS Trainee Estimator	TARMAC
• 1990: Highway Maintenance Technician	DURHAM COUNTY COUNCIL
• 1994: Highway Design Engineer	DURHAM COUNTY COUNCIL
• 1997: Traffic Engineer	DURHAM COUNTY COUNCIL
• 2001: Traffic Engineer	WSP
• 2004: Consultant to Associate Director	AECOM
• 2013: Principal Engineer	JACOBS
• 2014: Principal Engineer	URS
• 2015: Principal Engineer	AECOM
• 2016: Road Safety Consultant	ATKINS

Career Progression

ATKINS

- Building and constructing highway infrastructure
- Maintaining highway infrastructure
- Designing highway improvements and new highways
- Collision investigation and prevention and road safety audits
- Traffic Engineering, road safety engineering, road safety audits
- Operational Road Safety (Major Projects), road safety audits

Current Role

- Operational Safety
- Road Safety Engineering
- Collision Investigation
- Road Safety Audits

What is Operational Safety?

ATKINS

- It’s the use of the accident investigation and prevention skills of **Road Safety Engineers** in the **identification, planning, design, maintenance and operation of transport infrastructure** – including roads, railways, and airports.

- It assesses safety of road workers; road users and third parties, and there are three elements of Operational Safety on projects.

1 - Safe Road Design

- Collision Investigation
- Conflict Studies
- Cycle Audits
- DDA Accessibility Audits
- Home Zones
- Independent Expert Witness
- Lighting Assessments
- Local Safety Schemes
- NMU Audits
- Option Evaluation
- Road Safety Appraisal
- Pedestrian Environment Review System
- Pedestrian Guardrail Assessments
- Quality Audits
- Road Safety Engineering
- Safer Routes to School
- Safety in Design
- Speed Management
- Training
- Vulnerable Road User Audits

2 - Road Safety Audit

- Stage 1
- Stage 2
- Stage 3
- Stage 4a / 4b

3 - Safety Governance

- Compliance Strategy
- Hazard Log
- Operating Regime
- Safety Plan / Safety Report
- Maintenance and Repair

Safety Policy and Guidance

- Guidance Advice / Preparation
- Policy Development
- Road Safety Plans

What skills are required to be a Road Safety Engineer and Auditor?

ATKINS

Road Safety Engineer

- trained and experienced in highway **Collision Investigation and Prevention (CIP)**

Called collisions in recognition that most are caused partly or solely by human error; ‘accident’ suggests ‘it’s just one of those things’ which is at odds with the ‘zero tolerance’ approach to road user and road worker harm.

What skills are required to be a Road Safety Engineer and Auditor?

ATKINS

Road Safety Auditor

- **2 weeks of formal CIP training** (e.g. ‘RoSPA AIP’ or ‘RoSPA Road Safety Engineering’ course or equivalent) - involves analysis of collisions, trends, behaviours; understanding factors that cause errors and deliberate actions which lead to collisions. Delegates are trained in:
  - analysis of highway layout to identify design/operational features which might result in avoidable collisions (**road safety audit**),
    interventions to reduce the number and/or severity of collisions (**casualty reduction**)
  - monitoring/statistical analysis of schemes – new/improved roads & other interventions eg training.
- **4 years of experience in CIP** including recent accident investigation/analysis experience.
- **2 days of CPD** every year in road safety audit or accident investigation.
- To **undertake at least 5 audits each year**, and on a range of scheme types – auditors must have relevant audit experience of the type of scheme they’re auditing.

Conclusion

- Who knows with certainty where their career will take them?
- Don’t specialise too soon!
- Experience is the key!

Questions?

ATKINS