

Sophie Brennan

Junior Transport Engineer



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Transport Engineering graduate from Edinburgh Napier University with a **6 month placement at WSP**. Produced junction models for **5 development sites** using ARCADY and PICADY, assisted with **3 transport assessments** for planning applications, and carried out traffic surveys at **8 locations** across central Scotland. Graduated with **Upper Second Class Honours (64% average)** and hold CIHT graduate membership.

Experience

Jun 2025 – Nov 2025

Transport Planning Intern, WSP, Edinburgh

Completed a 6 month placement in the transport planning team at WSP's Edinburgh office.

- Produced junction capacity models for **5 development sites** using ARCADY and PICADY, assessing roundabout and priority junction performance
- Assisted with **3 transport assessments** for residential and mixed-use planning applications, drafting text and producing trip generation calculations
- Carried out classified traffic counts and pedestrian surveys at **8 locations**, processing data in Microsoft Excel and producing summary reports
- Created **10 AutoCAD drawings** showing proposed site access arrangements and swept path analysis for refuse vehicles

Sep 2023 – May 2025

Lifeguard (Part-time), Edinburgh Leisure, Edinburgh

Part-time poolside lifeguard role during term and holiday periods.

- Supervised pool sessions with up to **80 swimmers** and maintained a **100% safety record** over 20 months
- Completed quarterly first aid refresher training and pool plant operator checks

Education

Sep 2022 – Jun 2026

BEng (Hons) Transport Engineering in Transport Engineering, Edinburgh Napier University, Edinburgh

Graduated with Upper Second Class Honours (**64% average**).

- Final year project on the impact of Low Traffic Neighbourhoods on traffic redistribution, using microsimulation in VISSIM, graded **72%**
- Relevant modules: Traffic Engineering, Highway Design, Transport Planning, GIS for Transport, Sustainable Mobility

Skills

ARCADY & PICADY, LinSig, VISSIM (Microsimulation), AutoCAD, Traffic Survey Design & Analysis, Transport Assessment Writing, Trip Generation (TRICS), Swept Path Analysis (AutoTrack), GIS (QGIS), Microsoft Excel, Technical Report Writing, Planning Policy Awareness

Certifications

Sep 2025 – Sep 2025

CIHT Graduate Member, Chartered Institution of Highways and Transportation

May 2025 – May 2025

CSCS Green Card, Construction Skills Certification Scheme

Languages

English - Native

Projects

Sep 2025 – Apr 2026

Low Traffic Neighbourhood Microsimulation Study (Final Year Project)

Modelled the traffic redistribution effects of a proposed Low Traffic Neighbourhood in Leith, Edinburgh.

- Built a VISSIM microsimulation model covering **12 junctions** and **24 link sections** with calibrated traffic flows
- Simulated 3 LTN boundary filter configurations and assessed impact on journey times, rat-running, and air quality
- Found that the optimal configuration reduced through-traffic by **62%** while increasing boundary road delays by only **8%**

Extra Curricular Activity

Sep 2024 – May 2026

Edinburgh Napier Cycling Club Treasurer

Managed a budget of **£1,800** and organised **12 group rides** across the Lothians for a membership of **35 students**.